

THE AMERICAN FARMER:

DEVOTED TO
AGRICULTURE, HORTICULTURE AND RURAL ECONOMY.

[FIFTH SERIES.]

"O FORTUNATOS NIMIUM SUA SI BONA NORINT
"AGRICOLAS." *Virg.*

Vol. I.

BALTIMORE, DECEMBER, 1859.

No. 6.

DECEMBER.

"Behold, fond man!
See here thy pictured life; pass some few years,
Thy flowering Spring, thy Summer's ardent strength,
Thy sober Autumn fading into age
And pale concluding Winter comes, at last,
And shuts the scene."

The seasons are ever picturing to us the "state of man." First, the beautiful, joyous, happy Spring season, when all is gay and hopeful life; then the earnest, vigorous Summer time of action; then the thoughtful, sober Autumn, when he gathers up the results of his life's labour and estimates its value; then comes the "pale concluding winter," when, if he has prudently "laid up in store" for the time to come, a "rest" awaits him; comfort and repose and safety in a home where he has placed his treasure in advance—even the home he inherits of Him whom he is taught to call his Father. Let every earthly household where the endearing names of father and mother are known, and where brothers and sisters dwell in peace, be made the living type of that which we can only faintly picture.

WORK FOR THE MONTH.

The work for the month consists mainly in completing what is yet undone; of gathering in and caring for the various matters which demand your attention. In making promptly all necessary provision for the winter comfort of your family. In winding up, as far as possible, the yearly operations of the farm, and preparing for a fresh start with the new year.

CORN.

Have Corn crop now, with as little delay as possible, husked and put under lock and key.—It is liable to depredations on all hands, as well as wasteful use, so long as it is exposed. Keep a careful account of quantity lost, as well as of

that fed to hogs. Let the shucks be well preserved for fodder.

TOBACCO.

On every opportunity press forward with the Tobacco stripping, in order to have the work of preparation for market off your hands at an early period. A great deal of care is requisite for the proper handling and sorting of the crop, and the most important work for the overseer is the constant supervision of the hands to ensure due care in this respect. The practice of throwing down sticks of Tobacco from the joists, instead of careful handling from hand to hand, should by no means be allowed. So the bundles, after tying, instead of being thrown carelessly down, should be carefully laid in just the shape in which you wish to show them when they come finally out of the hoghead for inspection. Attention to these and other such matters are of much value to the crop, and beget a habit of neatness and care very essential to a successful planter. There is no crop in which difference in value depends so much upon the manager's habits of care and neatness. On closing up a day's work, have all the tobacco stripped, laid neatly away in bulks without pressing, have the sticks put up out of the way, and the stalks stowed in a corner of the house, to be used for manure, and by no means thrown out of the door to be washed first by rains. The stalks from a hundred thousand Tobacco hills are worth probably a ton of Peruvian guano, and should be just as carefully preserved.

PLOUGHING.

Continue the ploughing of stiff lands as long as they are not frozen. For the purpose of putting forward the Spring work, any sod land may be ploughed now, but except for this purpose we prefer leaving the corn land until just before planting time. Stiff clays, however, it is proper to expose to the action of frost.

CARE OF STOCK.

Let all stock, if not done before, be now well cared for, and have the benefit of protection from the weather. It is too much the custom to allow store cattle to shift for themselves as long as the weather keeps moderate. Such food as they get now in the pastures is not fit for them. Give them the best provender you can afford, and be sure that their coming through the winter well depends very much upon their being kept to their flesh now. We need not urge again the necessity of ample shelter, so that if possible every animal may be well housed without being tied in a stall.

Work Horses.—Work Horses and Mules should of course be especially cared for. Give them ample stable room and good bedding. Never allow them to be put up after work without being rubbed dry and their feet and legs well cleaned.

Oxen.—Feed working Oxen always apart from other stock, lest when not at work they master too much the weaker stock, and when at work, and brought late into the yards, they be deprived of such fodder as they are entitled to.

Calves.—Keep Calves in separate pens, and feed them with best hay or fodder, and some bran and meal, if you would have them continue to grow. It is a mistake to suppose that all that can be expected of stock in winter is to keep the life in them, and be able to walk to the pasture in Spring.

Cows.—Such Cows as are to be kept in milk during winter should be very comfortably housed and well fed with extra food of bran and meal mixed, and ruta-baga, sugar beet, &c.

Water.—Use the best means at command to supply your stock with water. If possible there should be water in the yard, but by all means where it can be got frequently.

Sheep.—Have shelter for Sheep with racks and troughs for feeding. Those you are feeding for the butcher will, of course, be kept to themselves, and others properly sorted.

Hogs.—Continue the feeding of Hogs with strict regard to their health, comfort, and economical expenditure of food.

CURING HAMS.

We repeat here the excellent recipe we published in our monthly supplement, and two others which we published last year, one being that of Mr. J. Q. Hewlett, and the other that of Mr. S. W. Ficklin. Either will do if well followed. It will be observed, however, that there is a material difference as to the length of time which the meat should lie in salt. One being six, the other three weeks, and one from four to six, according to size. Our own impression is that for Hams

weighing say ten to twelve pounds, three weeks in salt will be found sufficient. We used Mr. Hewlett's recipe last year, and found that time long enough, and that smaller Hams were too much salted. Hereafter we have kept in salt usually as long as six weeks. The advantage of hanging early consists in getting the meat smoked and secured in bags before the warm days, when the fly may get at it:

The Frederick Recipe.

For pickling one hundred pounds of Pork, Hams, Beef, &c.: Take six gallons of water, nine pounds of salt, mixed, (half fine and half coarse,) three pounds of brown sugar, one quart of molasses, three ounces of saltpetre, and one ounce of potash. Boil and skim it well, and let it stand till entirely cold; then having rubbed your meat with fine salt, pour this brine over it; let it remain six weeks over it; then hang up and smoke.

Mr. Ficklin's Recipe.

8 lbs. salt; 2 ounces saltpetre; $1\frac{1}{2}$ ounces potash; 2 lbs. brown sugar, or $\frac{1}{2}$ gallon molasses; 1 ounce red pepper. These ingredients, dissolved in five gallons of water, constitute a brine which should be poured on 100 lbs. of hams, already packed and closely fitted in a water-tight cask;—the hams having been previously rubbed with salt and thoroughly aired two days before being put into the cask.

After immersion from four to six weeks (according to size) they should be hung up by the skin of the shank, and, when smoked sufficiently, covered with paper; then put in bags and hung, hock downwards. The whole process completed before the warm days of March.

Mr. Hewlett's Recipe.

To 1000 lbs. of meat, put 3 pecks fine Liverpool salt and 4 lbs. saltpetre. Put neither pepper, sugar nor molasses with the foregoing. Pack in a cask, the bottom of which must be perforated with holes, to allow the drip of bloody water to pass off. Let remain three weeks, and then smoke every morning with good green hickory wood, using a box stove placed in a room, or elsewhere, and separated from the meat a sufficient distance, so that the smoke may be cooled before it comes in contact with the meat. Now up in canvas bags the latter part of February, but by no means later, for fear the fly should appear, some mild day.

WORK IN THE GARDEN.

DECEMBER.

There is little to be done in the Garden this month. All such matters as we called attention to last month, if not completed, should now have especial attention.

PLANTS IN FRAMES.

On all mild days raise the glasses about mid-day to give air to the plants. Close before night, and in severe weather cover with mats.

STIFF CLAY REIMS.

Dig these well and let them remain in a rough state exposed to the action of frosts.

MANURES.

Good, well-prepared composts are of especial necessity for the Garden. Begin in time therefore to get together all materials at your command for the purpose.

PROTECTION OF PLANTS.

Newly planted trees and all half-hardy plants may be protected against alternate freezing and thawing by wrapping with straws or strips of matting.

OTHER WORK.

Manure may be carried to the ground, where it may be wanted, when frozen; all litter and waste gathered; sticks and poles which may be fit for use another season put away, and new ones got from the woods in readiness for spring.

THE FRUIT GARDEN.

It is well to throw strawy litter of any sort around the roots of newly planted trees as a protection of the young roots from severe frosts. This covering should not be so thick as to afford a harbor for mice, which might be destructive to the trees.

PRUNING.

Pears, Apples, Gooseberries, Currants, and all hardy fruits, may be pruned during the winter months. Peaches and other stone fruits it is better to defer till February. Rub and scrape off all moss from tree, and wash them with lye or soap and water. Haul manure on the ground ready to be worked in with the soil.

Pears—The Bartlett.

A correspondent residing in a neighboring town, and having a very small lot, asks us what single pear shall he plant to occupy the room which he has to spare? We answer, without hesitation, the Bartlett. For general cultivation, it is, in our judgment, incomparably the best, and second only to the Seckel in quality. It is both an early and a constant bearer, and where the tree is taken the least care of, the fruit is of the most uniform size of any pear within our knowledge. On a small dwarf tree, this season, we raised thirty-two pears, all of large, uniform size, all perfect, and all remained on the tree until the period of picking. So with several standard grafts; they were all loaded with fruit, with scarcely a small or imperfect pear, and they all matured. If anybody was to ask us what six pears to cultivate, the answer would promptly be:—1. Bloodgood; 2. Seckel; 3. Bartlett; 4. Bell Lucrative; 5. Beurre Diel; 6. Lawrence.—*German town (Pa.) Telegraph.*

Surface Manuring.

COMMENCED, TAMES, Oct. 27, 1859.
N. B. Worthington, Esq.

DEAR SIR: I have thought from time to time I would send you my experience in surface manuring—not that I thought it would convert any one from the "errors of his ways," but that you might learn that some of your subscribers in the back woods of Tennessee occasionally tried to see if some things were not better than others.

I commenced taking the *Albany Cultivator* in 1841 or 1842, and have never been without one or more agricultural papers since, and have taken three for five years. They all recommended the manure to be ploughed in immediately, and I was always attentive to their teaching until about the time of your controversy on the subject, when I had a field of 70 acres to break up for wheat with two ploughs, and having a quantity of manure about my barn in my way, I ordered my ploughmen each to take a load of manure to the field in the morning and at the middle of the day, and to spread it on the thinnest points of ground they would plough each day, so that they might plough it all under and not have it too long exposed to the action of the sun. They did so, and manured the field at all points that needed it but one, and that was a poor place that covered two acres. That place I manured lightly after it was broken, believing it was throwing much of the manure away, but as I wished to sow the field in clover, I thought I would manure it. I sowed it and was astonished to find that portion manured after it was ploughed looking greener and more thrifty than any part of the field. It continued to look better than any other part of the field until harvest, and was the only portion of the field that was well set in clover.

I broke the field up again and sowed it in wheat and clover the next year, and the part manured after it was broken up, was the best part of the field. The points manured and ploughed under did not show but little if any evidence of having been manured either year. The land was good—a dry, mellow soil; it produced twenty bushels of wheat per acre each year. I have never since ploughed under any more manure. I have shown, from time to time, your articles on surface manuring to intelligent farmers, and they all agree that top-dressing is the only way manure will pay for hauling out and distributing it on the land.

This is not intended for publication, but that you may know that one that has watched your course closely ever since your connection with the *Farmer*, approves your course, &c.

Respectfully, &c.

As our correspondent says his letter was not intended for publication, we withhold his name, though we should prefer giving it. We like to have such communications, and no one need feel diffident of seeing his name in print in connection with them.—*Ed.*

It is with the diseases of the mind as with those of the body; we are half dead before we understand our disorder, and half cured when we do

[For the American Farmer.]

The Cicada Septendecem, or American Locust.

BY YARDLEY TAYLOR.

This singular insect will again make its appearance in the spring of 1860. Why the name of locust was given to it, is hard to tell, as it does not belong to that family of insects. Its true designation is *Cicada*, of which the cricket and such other singing insects are examples. The true locust of the Eastern Hemisphere is of the grasshopper family, and are voracious feeders, and often commit dreadful depredations in the Northern part of Africa and sometimes in Southern Europe. The flying grasshopper of the West, that sometimes visits Minnesota and Utah, if not the same insect, is of the same species and character.

The *Cicada Septendecem*, as its last name indicates, is of 17 years duration, and this is its greatest singularity. When first hatched from the egg, it is said to have the same form and appearance as when it issues from the ground preparatory to taking wing. As it lives so long a time beneath the surface of the ground, it has been considered entirely harmless, but later investigations induces the belief that it often does injury unperceived. As all animated nature must live on vegetables, in some form or other, during their existence, the conclusion is strong that these insects must do the same thing, and as they appear to live while on the wing on the nourishment received before emerging from the ground, they must have received nourishment while there.

Some naturalists who have given special attention to their habits, assert that they have found them adhering to the roots of trees and apparently drawing sustenance from them, and from this suspect that, oft times when trees have assumed a sickly appearance, they are the cause of it. They have been known to arise in very large numbers from beneath apple trees in orchards, where no doubt the eggs were deposited in the young and tender shoots of the trees by the parent insect 17 years before. This fact is evidence that they do not move laterally in the earth, but descend perpendicularly, or nearly so, and only ascend as far out as the branches extended. If the tree has been cut down within the 17 years, they will ascend where it stood, and in this case they must have lived on the roots of other vegetables growing in its place.

They usually make their appearance above ground from the 20th to the 25th of the fifth month (May)—seldom earlier than the first or later than the last date. They have been seen near the surface for some days before appearing, and apparently waiting for the proper time to come forth. Their holes are about half an inch in diameter, and perpendicular, except they meet with some obstruction, when they vary their course to get round it. When first coming above ground, they are about three-fourths of an inch in length, have six legs, the two hinder ones flat and larger than the others; they have rudimentary wings, and the sexes may readily be distinguished. They usually come up in the night, so that they may be enabled to climb up some distance before their outer skin becomes dry and stiff. They ascend the trunk of a tree, a shrub,

or something of the kind, from one to six feet, and as the skin begins to dry and harden, they firmly fix themselves by their claws, when their skin begins to split open on the back, and the insect presses itself out through the opening, drawing its legs and feet out, even to the minutest part, thus leaving the skin entire, even to the form of the eyes and all. The skin will often adhere to the place of fixture for months. The insect will now increase rapidly in size, and in a few hours the wings, which appeared in the shell as rudimentary, will be found to have been nicely folded up, and will now expand and, with the body, will be near two inches long. The color at first is yellowish white, but soon turns brown, and then nearly black on the upper part of the body. The wings have strong veins and nerves, united with thin and strong films, the nerves uniting in such a way as to form the letter W, which superstition has interpreted to mean war. They soon are able to fly and are quite a strong and vigorous insect. On their first reaching the surface of the ground they are preyed upon by hogs, and after leaving it, all insect-eating birds feast upon them; they are said to be so fat and oily that soap may be made with them.

The male insect soon commences singing his musical note. He is furnished with two concave drums, situated immediately under and behind the wings; these are covered with a thin parchment-like covering, with numerous small folds, and are acted upon by small cord-like threads or nerves beneath, that give a vibratory motion to the surface, and produce a quick, rattling kind of sound, that may be heard a considerable distance, and when they are numerous they may be heard nearly a mile. Each one will continue his music for perhaps half a minute, when, just before closing, he will increase the sound louder and then let it gradually die away, and after a little time will renew it again in a similar manner.

The female never sings; she is provided with an ovipositor for puncturing small branches of trees, in which she deposits her eggs. This ovipositor is placed on the lower and hinder part of the abdomen, and is enclosed in a sheath. It is about the size of a small knitting needle, and about half an inch long and somewhat curved; it is flattened at the end and lance shaped, and at the extremity is composed of two pieces, with sharp notches, like saw teeth, on the edges. By giving these a vibratory motion, the insect is able to penetrate small twigs to their centre, and then deposit four or five eggs in each incision—then, by moving about half an inch forward, she will perform a like operation and deposit again, thus often depositing several times in a line, if the twig is favorable, if not, she will move to where it is, as she never attempts to work where there is a branch or knot in the way, but only on smooth places. Small twigs are often so cut up as to kill them, and are sometimes broken off by the wind. They sometimes seriously injure young planted fruit trees when numerous, and the best plan, in that case, is to cut off the head or branches below the injured part, and let them form new heads. This is about all the injury the insect does in the winged state. They do not continue more than six weeks, probably they do not live over four, but by a few days in-

quality in their appearance, they are seen a little over five weeks.

The eggs thus deposited hatch after a few weeks, and it is said the young insect has the same form as when they first issue from the ground. It is a remarkable circumstance that they should live in the ground 17 years, all to a few weeks, and come out so nearly together.—We see by the newspapers that they are met with almost every year in some part of our widely extended country. Here we have two sets of them, and they appear every 8 and every 9 years alternately. It is said they have appeared here in 1792, in 1800, and in 1809. I myself remember them in 1817, in 1826, 1834, 1843 and 1851. When here last, they extended from the eastern base of the Alleghany Mountains, above Cumberland, to within a few miles of Alexandria, in Virginia. How far they extended north and south, I am not advised. In 1860 they will not extend much into the Valley of Virginia, very little west of the Blue Ridge, but will reach eastward about as far as Staten Island, New York.

Vinegar in Twenty-Four Hours.

The whole philosophy of the manufacture of vinegar, is included in the word *oxydation*, the alcohol contained in cider, beer, or wine, combining with the oxygen of the atmosphere, becomes acetic acid, which in a diluted state is vinegar.

The methods usually pursued in the domestic manufacture of this article, are to say the least of them, susceptible of improvement. The conversion of cider into good vinegar, by exposure to the air in casks, requires weeks and even months to accomplish; because, only a small surface is exposed at one time to the oxydizing action of the atmosphere.

By exposing a larger surface of the liquor to the atmosphere, oxydation takes place with corresponding rapidity, and the process may be completed in from twenty-four to forty-eight hours.

The method of accomplishing this rapid acetication, which has long been known to scientific men, and manufacturers, may be pursued without difficulty in private houses, as follows: Take a clean flour barrel, and bore auger holes all around the sides, and in the bottom; set it over a flat tub or open cask, and fill it light with beach shavings which have been soaked in vinegar.—On top of this barrel, which is open, lay two strips of wood, and resting on these, a pail filled with cider, beer, or the like. Procure twelve or fifteen lengths of cotton wicking, about thirty inches long; which, after dipping in the liquid, arrange round the sides of the pail at regular intervals so that one end of each wick will be hanging in the cider and the other one hanging down outside and below the bottom of the pail. By means of these wicks, the pail will gradually be emptied of its contents; which trickling over the shavings will be exposed to the air, absorb oxygen, and finally be received in the tub beneath. By returning the liquor into the pail above, and suffering this trickling process to be repeated two or three times, a splendid vinegar will be obtained. The whole secret of the process lies in the mechanical increase of surface accomplished by the shavings.—*Scientific American.*

[For the American Farmer.]

WHITE CARRIER PIGEON.—(*Albus Tubellaria Columbo.*)—A species of Pigeon, which has received that name from being employed in conveying letters from one place to another; larger than the common pigeon, the cere very large, extending over half the side of the head; bill white; on the bill a large wart or wattle, hanging down on both sides next to the head and terminating in a point about the middle of the bill; the eyes are surrounded by the same ferrugineous substance, extending to about the diameter of a dime. Neck long and slender; body long; feathers lay very close to the body of the Carrier, which gives them the appearance of marble birds.

Immediately on escaping, the Carrier towers to an immense height, and then commences its progress with inconceivable rapidity; though it be difficult to ascertain the velocity with which a bird cleaves the air, it has justly been compared to the flight of an arrow from the bow. Most probably the rate of flight is not less than thirty miles an hour—some say ninety miles per hour. The Carrier is naturally endowed with the faculty of returning to its usual place of habitation. It is only used during the time of incubation. When the pigeon is allowed to escape, its feet are bathed in vinegar to keep them cool, and to restrain the bird from alighting in quest of water, by which the billet or letter which was fastened under its wing, might be injured, or the journey prolonged. It was not uncommon for the English merchants at Aleppo to obtain intelligence of the arrival of their ships at Scanderoon, by the Carrier Pigeons, in the eighteenth century. In more modern times the Carrier has been employed to convey intelligence, which required immediate communication, to the Turkish government; which practice is carried on until the present time.

The Collins steamship Atlantic, Capt. Eldridge, arrived off Sandy Hook about 9 o'clock in the morning, on the 12th day of October, 1857, and was hailed by the news-boat of the N. York Associated Press, Capt. Farrall, who was furnished with the latest news, to send by "pigeon express." Mr. Rogers, late Superintendent of the Telegraph Lines, was on board the Atlantic at the time, on his return from Europe, and to relieve the anxiety of Mr. Rogers' family, Captain Farrall, of the news-boat, kindly sent by Carrier Pigeon to the Sandy Hook Telegraph Station, a message from Mr. Rogers to Mrs. Rogers, at Baltimore, informing her of his arrival, to which a reply was found at the Astor House, N. York.

The writer has a pair of these noble and useful birds, which flew from the city of Philadelphia to the town of Williamsport, New York. On their passage, they were shot at and half of the bill of the female taken off by one of those prowling idlers who take pleasure in destroying useful birds.

ICE PIGEON, SILVER DOT, OR SILVER SHOOT.—(*Glacies Argentum Aut Germin Columbo.*)—Size of the common pigeon; head capped, black and dotted with silver white; neck and breast black, and dotted with silver white; the white round the neck resembles a ring; all the larger wing feathers black, and dotted with silver white; the small wing feathers and the back ice colour or

silver white; tail black; belly and thighs and all under parts jet black; feet carmine red. This beautiful bird is a native of China, and prized very much by the amateur pigeon fanciers of China. In Frankfort, Germany, they are sold at a high price, and in London are very scarce. In America there are a few pairs, in private aviaries, and they hold them in high estimation. Habits like the common pigeon, building and laying two eggs in every six weeks; they raise their young well, and a few pairs in a gentleman's aviary makes a handsome appearance. A pair of these beautiful domestic pigeons is in the possession of the writer, and Edward F. Jenkins and R. H. Evans, Esqs., of Baltimore, and Thos. Allen, Esq., Philadelphia.

J. JACOB BOWER.

"Paul Clifford."

To the Editor of the American Farmer:

My attention has been called to a short notice in the September number of the "American Stock Journal" concerning the "Morgan" horse "Paul Clifford," now in this city, and of which I am part owner. The article in question is an answer to an inquiry by a "subscriber in Virginia," and as it contains some errors, I am anxious to correct them. It is true, as stated in the "Stock Journal," that there is an error in "Lindsley's Morgan Horses" concerning the date "Paul Clifford" was foaled—but the error is not properly corrected in the article above alluded to, and this is of some moment. This horse was foaled, not in 1843, as stated in "Morgan Horses," nor yet in 1845, as named in the "Stock Journal," but in June, 1848, in Orwell, Conn., and was the property of John Thomas—therefore he is now—not 8 or 9 years, neither 14 years of age—but eleven years old last June; his sire was Hill's "Black Hawk."

"Paul Clifford," now of this State, is the horse named as such and intended to be described in "Morgan Horses."

Respectfully,
Baltimore, October, 1859.

L. MONGAR.

The above was received in October and should have been inserted before, but was mislaid.—Ed.

Subdivide the Cattle Yards.

In regard to the necessity for such division of cattle yards as will give equal opportunities to the animals confined therein, for progress and improvement, the *Prairie Farmer* says:

"Large and small animals are turned in promiscuously together, and every farmer knows that the larger ones are very ferocious and domineering towards those much inferior, but careful not to provoke the wrath of such as are nearly equal. Turn those together that are of a similar size, and they will be more quiet. Calves generally are too much neglected, and come out small and puny in the spring. A good manager has a spacious stable for calves in one of his sheds, moderately lighted, and well sheltered from all currents of wind. This apartment is kept clean, and the calves fed on good hay, and supplied with good water. They present very different appearances from other calves in the spring."

[For the American Farmer.]

Culture of the Potato.

FRIEND WORTHINGTON: Feeling an interest in common with my fellow-farmers in the culture of this most important of all roots, I ask a small space in the columns of the *American Farmer* for the purpose of getting up an inquiry into the cause, and, if possible, to find a remedy for the blight that has infested them to a greater or less extent since the year 1842. Previous to this date the potato was of the most easy, simple, and sure culture—there being no disease among them, neither did anything disturb them, save only the long striped potato-fly, which would at times nearly strip the vines of their leaves, from which, as a general thing, they would recover without serious loss in the crop—the tuber remaining, to all appearance, in a perfectly sound and undiseased state. Then why are they of such difficult culture now? This is the question. And I hope that farmers will make use of the opportunity which the "*American Farmer*" always holds open for their benefit.

This is a momentous question, and should engage our most serious and deliberate investigation. The white mercer seems to be the most subject to the disease; at times nearly all of them, in particular localities, are lost; at other times they appear to be all sound and good, but very few of them, and very small at that—as, in 1857, was the case with the middle and late planting. The first planting maturing well, made a fair crop; but in the middle planting the vines died outright, with the tuber half grown; and the late planting, with the vines just blossoming, did the same thing at the same time, with the tuber just setting; and yet, strange to say, we heard no complaint of the rot or speck that year in this locality. Now, how is this? Can it be that the insect which Lyman Reed professes to have discovered was developed to such an extent, at that particular time, as to be just sufficient to kill the vine in all these cases, and leave the tuber to all appearance perfectly free from disease. The Long Red, as well as some other of the inferior varieties seem to be comparatively clear of the blight; these always being at a low price in our market causes them very properly to be neglected. The Peach Blow, a potato as yet not very widely known or cultivated, is said to be very good and quite productive. One of my neighbors planted them this year side by side with the White Mercer, with the same kind of soil and treatment in every particular; yet, strange as it may appear, nine-tenths of the Mercers rotted, and not one in a hundred of the Peach Blows; both kinds being well grown and under the best kind of cultivation—i. e., ridge culture, mellow dry soil, and kept clear of grass and weeds. Now, if this is the general character of the Peach Blow, farmers should know it as soon as possible, that they may supply themselves in time with seed for the coming year. They are, as far as I can learn, as good, if not better, than the White Mercer for the table, and much more productive. If the patrons of the "*Farmer*" having cultivated the Peach Blow would give the result of their experience therein, much valuable information would be imparted, and a definite conclusion arrived at through this valuable medium; and likewise the effect of a change of seed from a different locality

and soil, and how often these exchanges should be made to be the most beneficial. In the trial of the Peach Blows above stated, the seed was brought from New York into this county, (Harford, Maryland.)

If I had made use of the columns of the "Farmer" a year ago, in the way of investigating the subject, instead of going to Lyman Reed, I should, I think, have fared much better than I have; his remedy with me being a perfect failure, destroying nine-tenths of the seed, without any appreciable diminution of the rot in the very few of them that did grow; and I would hereby caution farmers to beware—as the preparation is attended with much trouble, delay, and cost, an imposition which farmers should not encourage or bear, as their money must be earned before they get it.

ISAAC TWINING.

Fullerton, Harford co., Md., 11th mo., 1859.

The Crow of Ceylon.

Every one has heard of the sympathies of animals towards each other. Cries of distress will often call them forth. When the dam of a new born lamb has died, some affectionate sheep, although she may have one of her own, has been known to foster and suckle the helpless young one. In my own immediate neighborhood, the youngest of a large litter of pigs—a poor little helpless creature—who was not able to get at its mother for nourishment, was warmed under the wings of a good-natured hen. It was fed by hand, but when turned down the hen was always ready to take charge of it, and thus it was reared. These instances might be multiplied to a considerable extent, showing the active benevolence of some animals; but the following fact will prove the existence of a combined intelligence in creatures which I have reason to believe has been hitherto unnoticed by naturalists as existing among the feathered creation. The accuracy of the anecdote may be vouched for.

In the Island of Ceylon there is to be found a very cunning and sensible crow, somewhat smaller than our own native one, having a glossy back, and altogether rather an engaging, pretty bird. Now, in the yard of the Governor of Ceylon a dog was one day amusing himself by gnawing a bone, the scraps of meat upon which attracted the attention of one of these crows. It alighted on the ground, hopped round the dog and the bone, and evidently waited for an opportunity of seizing the latter. The dog, however, was on his guard, and by certain growls, and probably angry looks, which the bird understood no doubt, protected his property. The crow was too cunning and too hungry to be baffled. He flew away, but soon returned with a companion. They hopped up to the dog, when the fresh arrival watched his opportunity and gave a sudden pull at the dog's tail. Not being used to such an insult, he suddenly turned round in order to see who had taken this liberty with him. The bone was for a moment left unprotected, and was immediately seized by the first cunning crow, who flew away with it, joined by his companion, and they doubtless had a merry feast upon it.—Once-a-week.

Speak little, and to the purpose.

Vineyards—Produce and Profits.

In some parts of the earth the vine is largely cultivated, and in some countries its products are among the most important. This is specially the case with France, Italy and Germany. In the United States, it is likely to become important in certain limited localities. In California, in Missouri and Arkansas, in portions of North Carolina, Tennessee and Georgia, in the Central Ohio Valley, and perhaps some other sections, the grape is successfully cultivated for wine; and as the price of American wine is high, there can be little doubt that the manufacture of wine will increase until it becomes a very extensive and valuable business. Whatever opinion may be formed by the most rigid and ultra temperance advocates, in regard to the use of wine, two facts are greatly in favor of American vineyards. It is certainly better and safer than any sort of whiskey. Secondly, American wine is finer than any we get from abroad. This much must be conceded. It is true, men may get along very well without wine, as they may without coffee, whiskey or tobacco. General Cass, who is now nearly eighty, has never, we believe, drank any sort of liquor, and certainly is none the worse for it. A healthy man needs no stimulants. The light wines have, however, been used from time immemorial, and enter into the habitual use of millions of people. The moderate use of this stimulant has no more effect than strong coffee. The Americans use the latter, the French the former. It is not true, however, as some travelers, rather superficial in their observations, would have us believe, that the wine countries have no intemperance. Such a fact, if true, would be little short of a miracle. Wine countries, like other countries, have much intemperance, though not quite so bestial and obvious as that produced by bad whiskey or drugged ale. The police and criminal statistics of France and Germany afford too many melancholy examples of intoxication and madness from wine, to render a theory of great temperance in those countries at all tenable. It is enough to say that wine countries certainly present their intemperance in milder and less disgusting forms. This is the case in Spain and Greece. Our country will probably never become a wine country, by its common and daily use, as some are. The climate, the race, and the habitual tastes of the people will prevent it. But it is quite plain that there will be a demand for an hundred fold the amount of wine now made, and this will give a wide field for the profitable culture of the vine, as one of various products. To go much farther in its culture, something must be done which is not yet accomplished. There must be more variety in the quality of the wine. In this region we really have but one wine, the Catawba. This may be always preferred as the best, but it does not satisfy all tastes, and it will not satisfy what may be called a national demand. A new kind has been made at Hermann, Missouri, and the California wines are probably quite different. We are told they are lighter, probably more like the Greek wine.

The culture of the Catawba grape has now so far advanced in the neighborhood of Cincinnati, that this has become known as a centre of production and commerce in that article. The brands of some of our cultivators of the vine are well known throughout the country; and the spark-

ling wine made by Mr. Fournier may be safely compared with any of European manufacture.—Each year new cultivators are coming into market, and the comparative failure of the vintage in the last three years has not discouraged them from planting more vines. The hills about us give evidence of extensive culture, and many acres have been planted in the neighboring counties.—With this increasing cultivation it will be interesting to note, if we can, the quantity, commercial value and prospective profits of vine culture in the region of Cincinnati.

As to quantity, the estimates of the Horticultural Society, and other observers, make the quantity of land now in vines 3,000 acres, of which 2,500 are in bearing. The average of the present year's crop, in several vineyards, of which we have an account, is 250 gallons per acre. This will give 625,000 gallons of Catawba wine for the year 1859, a considerable advance on any former year, but probably not exaggerated.

The commercial value, not looking either to time, or the manufacture of sparkling wine, may be put at the same number of dollars, \$625,000.

The quantity per acre is estimated variously by different persons, in general at the average of this year. But the only vineyard of which we have a full record, (that of Robert Buchanan, Esq.,) has given rather over that. Mr. B.'s vineyard has averaged 300 gallons per acre for twelve years. This long period ought to give us the true average, for it has embraced large crops, small crops, and no crops. Last year was the worst we have ever had, and the average was not over 40 gallons. But this year the average of Mr. B.'s vineyard is 585 gallons. He has seven acres, which produced 4,100 gallons. In the year 1854, this vineyard averaged 800 gallons to an acre, having produced 4,800 gallons on less than six acres.—The same vines, therefore, have produced various crops, from 40 up to 800 gallons, the whole period averaging 300 gallons. It is not probable (looking to the fact that the great changes of climate we have had in the last five years have not been paralleled in half a century) that the injury to the grape will be as great again in many years. If so, 300 gallons of wine to one acre may be relied upon with much confidence.

What, then is the profit? The capital invested in an acre of bearing grapes, at the period of ten years, cannot be counted at less than \$400, and the annual cultivation at \$60. The price of wine must also come down, under increased competition. It will not be over seventy-five cents, with full crops. Putting these data together, the reader will perceive that there is a profit of \$165 on a capital of \$400, labor being deducted. This is 40 per cent. It is double the profit on wines in ancient Italy, under Roman culture, when the interest of money was much higher than it now is. The result is the consequence of both increased crops and higher prices. If we are correct in the average amount of the crop, and such is present experience, wine may be sold at fifty cents a gallon very profitably, and at forty cents with a fair interest on capital. If wine can be successfully made at all in this vicinity, (and twelve years' experience has proved that,) it will, in a few years, be made in immense quantities, and yield large profits. To show the great extent of this branch of agriculture, in some countries, we add

here the quantities produced in some parts of Europe several years since:

	Acres.	Gallons.
In Austria.....	4,182,500	250,000,000
In France.....	6,425,200	331,232,000
In Spain.....	1,500,000	84,000,000

This statement, taken from the German statistics, shows that in Austria the average was but little over 60 gallons per acre; in France 50, and in Spain less than 40. These statistics may have been taken for a deficient year, but we believe that it is quite certain the average vintages of Europe are less than our own. Looking to the cheapness of labor, and to the fact that the capital has been many years invested, and therefore less expensive, it is quite obvious that half our average would pay well in Europe. We may look forward, therefore, to increasing culture of the grape till wine becomes common and low priced. Whether this be favorable to temperance or not, we feel persuaded it cannot be unfavorable to human life, when we look at the destruction now occasioned by poisonous liquors.—*Cincinnati Gazette*.

Mules vs. Horses.

The prominent reasons for using mules in teaming and farm labour in preference to horses, are briefly explained in the following views expressed by a correspondent of the *Genesee Farmer*:

They live to a much greater age; a mule has scarcely attained his matured strength at twelve years old, an age in which horses have commenced a rapid deterioration in value and usefulness; the average life of the mule is about thirty years, but often at forty they are known to perform efficiently the most laborious services.

A team of mules will accomplish almost the labour of horses with the consumption of about one-third less provender. Within the last few years mules have been extensively introduced into the teaming operations of the manufacturing district in which I reside, and are universally considered here more efficient and economical for that use than horses. Mules are subject to but few of the diseases that prevail among horses. Their hard skin and soft hair render them less liable to be galled by the harness or affected by cutaneous diseases.

They are said never to be infested by vermin. The vision of the mule is much more quick and distinct than that of the horse, and therefore they are less liable to shy or become frightened. They are sure-footed to a proverb. The mule excels the horse and emulates the ox in his steady and uniform efforts in labour. It is objected to mules that besides their disagreeable braying they are obstinate and slow, but these defects I believe may be overcome by gentleness and practice.

The breeding of these animals is a subject worthy the serious and considerate reflection of the farmer. It is evident to my mind that mules may be bred with less care and expense than horses, and they will command a price nearly equal to that of an ordinary horse, while the demand for them is prompt and continually increasing.

No man is so insignificant, as to be sure his example can do no hurt.

Difference in Short-Horn Cattle.

In reply to a letter from a distinguished agriculturist, we offer the following remarks:

Touching the question—"What is the difference between Short-horns and the *improved* Short-horns?"—it may be said, that as the terms are often used in England at this time, there is no difference, both being applied to the same variety of cattle. Formerly, however, there was a great difference, as will appear by reference to the history of the cattle referred to.

The term Short-horn originally comprehended (and does now really comprehend) a breed of cattle in which there is much diversity of character. So far as regards their presence in England, the best authorities consider them to have been introduced from the Continent, and hence they were for a long time known as "the Dutch breed." They occupied principally the counties of York and Durham. In the valley of the Tees, which separates these two counties, they in process of time acquired considerable superiority over the Short-horns in general, and became known as "the Teeswater breed." The Teeswater cattle were celebrated for the quantity of milk (of rather inferior quality) yielded by the cows, and for the great weight they were capable of attaining when fully matured. In regard to fattening tendency and quality of flesh, they exhibited decided improvement, though somewhat liable to be heavy in offal and slow feeders, producing an inferior quality of beef.

Such may be said to have been the character of the Teeswater cattle, when, towards the close of the last century, they were adopted by the brothers Colling, whose herds obtained great notoriety, and with others of similar blood, gave rise to a stock to which was applied the name of "*improved* Short-horns. From some of the leading breeders residing in Durham, it was sometimes called "the Durham breed."

It may now be asked in what the alleged *improvement* of these cattle consisted?—for we are told by the principal historian of the Short-horns, Berry, that "whatever had been the merits of the Teeswater cattle, it is certain that Mr. Charles Colling greatly improved them." [Rev. Mr. Berry's account of the Short-horns, in Youatt's treatise on cattle, p. 228.]

A few extracts will throw light on this question. Mr. Berry himself, in his pamphlet on "Improved Short-horns and their Pretensions," published in 1824, speaking of Charles Colling's "rule of proceeding," says—"His constant aim was to combine the greatest inclination to fatten with the most correct form." [Page 25.]

John Rooke, a contemporary of Colling, in a communication to the *London Farmers' Journal*, June 2, 1821, says—"Use or profit was his (Colling's) constant aim, but the procurement of it was directed to obtaining the greatest value of carcass alone for the food consumed. Had milk and carcass combined formed the basis of his selections, it may not be too much to say he would never have obtained that early maturity, excellent quality of flesh, and perfect symmetry, by which his bull Comet was so pre-eminently distinguished."

This language sufficiently shows what was Charles Colling's object, and what the *improvement*

which he effected. It was the earlier maturity of the Short-horns, greater weight in proportion to offal and food consumed, and better quality of flesh, as compared with the old or Teeswater breed. But after the dispersion of the Colling herds, and to some extent previously, crosses were made with animals from them, whose blood thus became infused into herds partaking more of the old Teeswater character. The result was the production of a stock having a greater milking tendency than the highest bred *improved* Short-horns, but with less merit as fatteners. Mr. Whitaker, of Greenholme, near Oddy, upwards of thirty years ago, obtained prominence for cows giving large quantities of milk, and importations were made from his herd to this country; but of late years the public taste (in Short-horns) in England, as well as in the greater portion of this country, has turned decidedly in favor of animals in which the beef-making propensity is the leading and almost absorbing characteristic. Few breeders of the present *fashionable* Short-horns would regard a pedigree which ran back to Mr. Whitaker's great milkers as conferring value.

It may be recollected that the purchaser of the highest priced animals, with the exception of Comet, at Charles Colling's sale in 1810, was Major Budd. He bought Lily at 410 guineas, Countess at 400, Peersess at 170, and the bull Petrarck at 365 guineas. Fourteen years after he became possessed of this stock, in a letter to John Hare Powell, Esq., of Philadelphia, he expressed his satisfaction with it for fattening purposes, but added that if milk was wanted, it would be advisable to resort to the "old stock." [Letter from Major Rudd in the Transactions of the Philadelphia Agricultural Society for 1824.]

Some of the bulls to which the gentleman refers, were bred in part from the Colling stock.—This was the case with Young Denton, said to have been a grandson of Comet on both sides.—Admiral ran still more into that strain. Celebs was said to have been begotten by a son of Comet, in possession of Sir H. Vaue Tempest. It seems probable that the power of these animals to produce good milking stock, was greater than if they had possessed more of the so-called *improved* blood. Holderness, or Fortunatus, as he was originally called, appears, from papers in the possession of the writer, received from his importer, the late Gorham Parsons, Esq., to have been bred at North Allerton, Yorkshire, and was considered of the best family of the Teeswater variety.—Perhaps no other bull of the Short-horn breed has ever been introduced into this country whose progeny from so-called native cows were more generally esteemed as milkers than his. He was kept in different parts of Massachusetts, even as far west as Berkshire county; also in Connecticut, where he was owned for several years, and finally, after considerable service in different parts of Oneida county, N. Y., died in a distillery stable at Clinton, at about twenty years of age.

It has already been remarked, that at the present time, the terms Short-horn and *improved* Short-horn are often applied to the same kind of stock. This has resulted from the fact that the *improved* variety has become so widely diffused and so much brought to the attention of the public, that in many instances the word Short-horn is naturally understood to refer to them, unless

some special qualification is used. The case is like that of the modern Leicester sheep. They were at first called after their originator, Bakewell, or from the name of his farm, Dishley; subsequently they were called *New Leicester*, to distinguish them from the old breed of the county, but as they have become more extensively known, and the old breed has declined, every body understands the term Leicester as applied to the improved kind. The term Durham, so frequently applied to the Short-horns in some parts of this country, is latterly seldom so used in England, and there does not appear to be any good reason for its use here.—*Boston Cultivator*.

[From the Milford News.]

Loss of Corn in Raising Fodder.

SPRING HILL, Oct. 20, 1859.

Dr. J. S. Prettyman—DEAR SIR: Some few weeks ago I read an article in the *Peninsular News*, from the pen of Geo. Seabourn, Esq., relating some experiments in blading and topping corn. The figures he gave rather surprised me, and I came to the conclusion that he must have taken the fodder at an unripe state to have made so great a loss; and, as I happened to be foddering my own corn at the time I noticed the article, I at once determined to satisfy myself by a practical and ocular demonstration. I therefore went to the field where the men were at work, (which happened to be about the middle of the field,) and selecting a spot, in the appearance of which there was no perceptible difference, I laid off a square of twenty hills each way, and took the fodder from two sections of 100 hills each, and left two sections standing with the fodder on, which remained until the first week in October, at which time most of it was dry to the tassels. About that time it was husked, measured and housed separately. I have now shelled and weighed it, and as it may be of interest to your numerous readers, I herewith send you a statement of the result:

200 hills, left standing with the fodder on, measured when husked 6½ baskets of ears, which yielded when shelled 192 lbs., or at the rate of 46 bushels and 16 lbs. per acre.

200 hills, topped and bladed, measured when husked 6 baskets of ears, which shelled 170½ lbs., or at the rate of 41 bushels and 6 lbs. per acre; which shows a loss of 5 bushels and 10 lbs. per acre.

This at 60 cents per bushel would be \$3, or \$60 for twenty acres; which amount would buy a ton of guano, at the present exorbitant price.—And the labour in harvesting the fodder would (if the material could be found) make a hundred loads of manure. This applied to six acres of grass, would make several tons of hay, more perhaps than there are tons of fodder on a 20 acre field.

It would, therefore, seem to be economy to let the fodder dry on the stalk. But, we have not got the hay; and until we change our system of farming we must have the fodder, corn or no corn. But the time will come, is coming, when the farmers of Kent will have barns well filled with good wholesome hay, that will impart life and spirit to the horse and fat to the ox. Then, and not till then, can we afford to let the fodder dry.

T. B. COVENEY.

Facts and Suggestions about Fattening Cattle.

This is the season in which the business of fattening cattle is more common, whether for consumption in the farmer's own family or for marketing, than at any other time of the year. The pumpkins, the soft corn, and other articles of the produce of the farm which cannot well be preserved nor marketed, are usually employed in the first stages of this process more advantageously than they could be in any other way. It is not, however, in regard to the first stages of fattening that we propose at present to treat; but rather of the farther advanced and finishing stages. In regard to these stages, we have lately met with some facts and suggestions of considerable practical value and interest, from the pen of a very accurate experimentalist and distinguished dairy farmer, the results of whose experiments and observations on "Dairy Management" have been submitted to your readers in previous volumes. These facts and suggestions, we think, may prove not only interesting, but also instructive to not a few, and as they have been placed on record in a journal which is never seen by one in a thousand of your readers—the *Journal of the Royal Ag. Society of England*—we have deemed them worthy of being presented in a condensed form, with the addition of a few comments.

First of all, however, we wish to say that there is an error of not unfrequent occurrence, in the early stages of fattening, or between pasturing and stable-feeding, which should be avoided by all who care for the reputation of judicious farmers or the profits of economical ones. We refer to the practice of allowing creatures to depend mainly on pasturing after the last of September or first of October, and to sleep out in the fields after that time of year. Both of these practices, except in years uncommonly warm in autumn, tend to rob cattle of fat and to lower their condition. The nutritive qualities of grass are materially lessened after frosts, and when an animal suffers from cold, as must usually be the case in sleeping in the open field in October, nature has provided a partial relief by consuming portions of the fat, which the animal may have already stored, in the creation of additional supplies of heat. In a word, it seems forgotten by some, that, without something additional to grass after frosts, and without shelter in chilly nights, cattle will lose in condition and quantity of fat; and that this is the *opposite of economy*, as it is much easier to keep on fat than to put it on. True economy and judicious management require early stabling during nights, and something in addition to grass after frost.

We proceed now to present the substance of the observations to which we have above referred, and which seem well entitled to consideration and perfect reliability, as they proceed from one whose acuteness and accuracy of observation are generally acknowledged. Mr. Horsfall, the gentleman referred to, states that he prefers for fattening full-grown cows, which have had one, or at the most two calves, at from three to five years old. He mentions cows only, as he is a dairy farmer, and does not himself breed any neat stock. He purchases, for fattening purposes, in the markets of the neighborhood. The breeds

in his district are mixed Short-Horns. The live weight of the animals he buys for fattening is from seven cwt. to nine cwt. each, that is from 784 lbs. to 1,008 lbs. Their capability of carrying additional weight generally proves to be about three cwt., or 336 lbs., so that when prime fat they will weigh from 10 to 12 cwt.

In regard to the relative proportion between dead or carcass and live weight, Mr. H. has found that it varies over a considerable range, according to the fatness or leanness of the animals slaughtered. For example, he states that the dead or carcass weight of cattle, if killed in a lean state, will be less than one-half their live weight, varying probably from 43 to 46 per cent. In Morton's "Cyclopedia," the comparison of carcass and live weight is stated at 50 per cent. when half fat, of cattle of the same quality as those upon which Mr. H. has made his observations. The usual rule among the butchers of New York, which allows that the dressed carcass of cattle in good condition will weigh about 55 per cent. of the live weight, may also be quoted in confirmation of Mr. H.'s estimates of the proportion of dead to live weight, which range from 45 to 60, according to condition.

The difference in weight between a cow or ox in a lean state, and the same animal when prime fat, seems to be, according to the experience of Mr. Horsfall, about 3 cwt. or 336 pounds. This is the average of the gain in weight which he finds in animals weighing, when lean, from 7 to 9 cwt. The capacity of carrying additional weight will be greater, we may presume, with larger animals; and by making allowances for largeness of frame, the greater or less degree of leanness, any one interested may be aided by the above results in calculating what gain in weight may be expected in fattening neat stock of breed and quality similar to those fattened by Mr. H.

It must sometimes be a matter of importance to those engaged in fattening cattle to be able to make some calculation as to the rate of increase in weight, or as to the amount of weight of meat gained per week or month. The experience of Mr. H. as to this point leads him to look for an average gain of 14 pounds per week, live weight, when fairly started and properly feed. At this rate it would require 24 weeks to bring up a cow, such as Mr. H. fattens, from a state of leanness to one in which she would be called prime fat; and the comparison between live and dead weight, when lean and when fat, would stand as follows with an animal weighing at first 8 cwt.:

Lean	Live Weight, 8 cwt. or 896 lbs.
Dead	Weight, at 45 per cent. 402 lbs.
Fat	Live Weight, 11 cwt. or 1232 lbs.
Dead	Weight, at 60 per cent. 738 lbs.

Gain in dead weight in 24 weeks.....336 lbs.

Or 14 lbs. per week, being precisely the average gain in live weight.

A higher rate in the increase of weight in fattening cattle may possibly be secured by a greater degree of care and expensiveness in feeding; and if any of your readers are in possession of any facts in relation to this matter, they would confer a benefit on the public by putting them upon record. The only fact within our knowledge bearing upon this subject is one which was reported to us by reliable authority a short time

ago, as to the rate of increase in fattening pigs. The average rate of increase in the weight of pigs under ten months of age is usually estimated at one pound per day, or seven pounds per week. By using cooked meal every day, and extra pains taken in other respects, a couple of pigs, killed at the age of seven months, were made to gain in weight at the rate of a little over two pounds per day. To show, however, that the cattle gaining 14 pounds per week were well fed, we may state that Mr. H. fed young cows with 60 pounds each of turnips, 4 pounds of rape cake, and 2 pounds bean meal per day, with chopped straw; and during the last six weeks an increased amount of rape cake. With such feeding, the average gain was 14 pounds per week.—Country Gentleman.

Shelter for Cattle in Autumn.

Those chilling storms and frosty nights which have begun once more to visit us, have called my attention to an error practiced by many farmers in leaving a portion of their stock to lie upon the ground at night, yarded in the open air, and exposed to all the vicissitudes of the weather, at a time, too, when the heat of the preceding summer has induced such a habit of body as to render them highly sensitive to the first approach of cold. If we would reason from our own experience, we should see that it is the transition from one extreme of climate to another which affects them most seriously, and we ought, consequently, to pay a special attention to their comfort at such times.

Cows that have been allowed to remain in pasture at night, or yarded away from the barn, should now be furnished at night, at least every cold and stormy one, with shelter and a dry place to lie.

Young stock should, when it is practicable, be similarly provided for; although many farmers think they may be allowed, like sheep, to find their shelter where they find their food till they are finally brought into winter quarters.

These suggestions are not urged principally upon the score of humanity, although that is not to be overlooked, but it is to be borne in mind that as the thrift and value of animals are inseparably connected with their bodily comfort, the profits to be derived from them are increased or diminished in direct proportion as that is promoted or impaired.—Cor. Country Gentleman.

An Eloquent Extract.

Generation after generation have felt as we now feel, and their lives were as active as our own. The heavens shall be as bright over our graves as they are around our paths. Yet a little while, and all this shall have happened. The throbbing heart will be stilled, and we shall be at rest. Our funeral will wend its way, and the prayers will be said, and we shall be left in the darkness and silence of the tomb. And it may be but for a short time we shall be spoken of—but the things of life shall creep on, and our names will be forgotten. Days will continue to move on, and laughter and songs will be heard in the room where we died, and the eyes that mourned for us will be dried and animated with joy, and even our children will cease to think of us, and will remember to list our names no more.

"Cut Feed."

The economy of cutting hay or straw into short pieces and of grinding whatever grain is fed, and mixing both together with water, is now very well understood by stock growers in England; and very many farmers in this country have adopted this method of feeding. The food thus prepared is commonly called by the stable men "cut feed." Under most circumstances there can hardly be a question that the preparation of the food in this way is far more economical than feeding hay and grain whole and dry, after the old fashion. It is particularly advisable to feed working, or fattening, animals in this manner; and we never knew an instance in which the plan was abandoned, after a patient and impartial trial.

At this season farmers should perfect all their arrangements for feeding their stock during the winter, and we would especially advise any one who has any working animals, to give the "cut feed" a fair trial, particularly if you happen to live in a section of the country where hay and grain are scarce and dear.

To do this you must have a cutting machine, and a tight box for mixing.

You can get a cutter at various prices, from five to twenty dollars. If you have a large stock to provide for, you will do well to get one of the best and fastest cutting machines; but if your stock is small, a cheaper one will do. The simple, old fashioned hand-lever cutter answers an excellent purpose when only a small amount of hay or straw is to be cut. Whatever machine is used, care should be taken to cut the fodder short, or into pieces of from one to two inches in length, for it is important that the stalk should be thoroughly moistened and softened before they are fed. The outer shell of the stalks is close and hard, and almost impenetrable to water, but the water enters easily from the cut ends by means of the sap vessels, and therefore the shorter the pieces are cut, the sooner they are softened and ready to feed.

The importance of this thorough moistening and softening of the straw, is often overlooked. It is, however, of much consequence, for when thus prepared it is not only much more readily digested, but it is also more thoroughly masticated.

The size of the mixing-box must depend upon the number of animals to be provided for. To mix for half a dozen, the box should be about seven feet long, two feet deep, sixteen inches wide on the inside at the bottom, and two feet wide at the top. The cut hay or straw should be first put in, and spread evenly in the box. Water should then be thrown over until as much is put on as the hay will absorb, which will usually be at the rate of about four quarts to a bushel of hay. Now push the mass to one end of the box, and with a grain or scoop shovel, take it up from the bottom and move it to the other end of the box, turning the shovel over each time as you empty it. This will leave the water upon the top of the hay as you put it down, so that it will again moisten all the straws as it settles to the bottom of the box. Repeat this process two or three times, or until the entire mass has become well moistened. Spread it evenly in the box again, sprinkle the meal over the surface, and with a three or four-tine fork, raise the hay from the

bottom and shake it slowly off from the fork. In doing this the meal will sift downwards, and be pretty evenly distributed. Work it over once more with the shovel, and it is ready to be used.

The quantity to be fed will depend much upon the proportion of meal. As working horses are usually fed, they require from two to four bushels per day.—*Stock Journal*.

Food for Young Stock.

It is a very common, and yet a mistaken notion with farmers, that one kind of food is just as good to promote the growth of young animals as another, provided the food is furnished in sufficient quantities. With scientific men, it has long been established as an indisputable fact, that one kind of food promotes fat, whilst another kind develops the bone and muscle and the physical constitution, and still another kind promotes the milking qualities. These facts render it essentially necessary that every farmer, or feeder, should study the peculiar properties of the different kinds of food, with a view to the exercise of proper discrimination in feeding for any particular purpose. Below we give an intelligent view of this subject, as expressed by Mr. Caswell. He says:—

"It is a nice point to grow a young animal to produce desired results at maturity. Adaptation of means to the capacity of the animal is the secret of scientific breeding. I am not particular what food is given, to bring about specified results, if they are attained at equal cost, as one specific rule of feeding and treating all bloods or breeds will not produce like results in form and constitution, no more than in color, disposition, and other characteristics. Breeding any distinct blood or breed to a certain standard would be uncertain without skill and experience in adapting proper means to the desired end, to carry out and transmit original characteristics. Milk stock require a change and variety of food to insure full development of physical constitution. In no case should a calf be gorged with any kind of food, to mature well; and for any purpose, an animal must have a capacity to eat and digest well, for a profitable maturity. It is not sufficient to bestow the first care upon the calf, a proper treatment should commence with the dam. Too high feeding the dam will produce an unprofitable overgrowth of the calf, and demand a continuance of a like excess of food, to sustain its excessive growth. In determining the kind of stock, the capacity of soil must be first ascertained, then adapt animals to soil. If one sixteenth of the weight of the animal is required as a sustaining amount of food, the question then should be settled as to the capacity of the soil to increase that amount to an extent commensurate with the digestive powers of the animal. Animals eating most above a sustaining amount, and digesting perfectly, yield the most profit, as a general rule. There is a wide difference in the powers of digestion in cows; some will bear but light feed without injury to their milking qualities. I have fed one cow eight quarts of corn meal and eight quarts of oil meal per day, with perfect digestion and largely increased quantity and quality of milk.—*Virginia Farm Journal*.

Cranberry Culture.

SOILS AND THE MODE OF PREPARING THEM.

It is of importance that the nature of those soils in which the cranberry will most easily grow should be considered, and known to those who intend turning their attention to its culture. Many failures have resulted, not so much from the unsuitableness of the location chosen, as from the badness of the soil. It is generally the case, that the best and richest soils are selected, as those in which experiments ought to be tried. Failures sometimes occur, not because the climate or season are unsuitable, but because the soil is too rich. If the vine is planted in good alluvial soil, it will do well, apparently, but it will not bear fruit. Such soil will cause the plant to abound with healthy foliage, and a vast quantity of runners, but no fruit. Manuring is wholly out of the question. If it is attempted, it will kill the plants, or in some cases make them grow rank, and they will be worse than they are found to be in their native swamp.

Clay and marl are totally unfit for cranberry cultivation. Either of this class are liable to cake and become hard; and whatever soil cakes and sogs around the root of the plant, is to be avoided.

Rocky loam is not very favorable to the development of the cranberry. The objection which lies against it is, that wiry grass and rushes abound therein. These grasses and rushes are to be guarded against in a cranberry yard, or they will choke the vine. Loam of the kind above named *may be made to do*, but it will require excessive cultivation, in order to effect anything of importance.

Heavy soils, taken as a class, are not of much service; the grower will do well to avoid them to as great an extent as possible. And, indeed, it is questionable whether the vine can be cultivated at all to any purpose on soils of the above description. The vine may grow on such lands and seem to flourish, but they will not bear; they are unfruitful, and if so, therefore unprofitable.

The following soils are those which are preferred by the Cape Cod cranberry cultivators. There is one fact which ought to be stated here, as introductory to the subsequent suggestions and statements, and it will not be amiss for the inexperienced cultivator to remember it. If he bears it in mind, he will avoid many difficulties which have discouraged others. It is this: *Dead sand, water and air*, are the elements upon which the cranberry feeds the best, and attains its highest degree of perfection; therefore, that soil and location which has these advantages is the best adapted for the growth of the berry.

Beach sand stands the first. All other kinds must be rejected if this can be got. Experience teaches us this. Those yards which are wholly bottomed by *beach sands* flourish and yield abundantly, far better than those that have a different soil. During the last fifteen years every variety of soil and situation have been experimented with, and the results are entirely in favor of the *beach sand*. On Cape Cod, the greatest cranberry field in America, situations are sought for where the cultivator can be near to the shore, that he may be able to put on this sand, if it is not on his chosen location.

We will, in this connection, call attention to a

small yard with which we are acquainted, which is situated near the sea-shore. It was originally a pond; water stood in the basin, but it was not deep. On the banks and edges of this pond was sand in abundance, which the owner spaded down to the water and continued to fill in. He planted; some said it would not do much, but now it is one of the handsomest yards in the country. Everything seems to be favorable—soil, situation and water—and the result is, heavy yields of berry. In this, as many as three bushels have been picked off a square rod. And so well is it now known that situations where beach sand abounds are the best, that the most practical men are buying up such locations with the view of converting them into cranberry yards.

We are acquainted with one cultivator, whose yards produce from two to three hundred bushels of cranberries annually, who has the greatest proportion of his vines planted in the beach sand, and some few in loam. The difference between the two is marked. Those in sand are fruitful, those in loam are but small producers. He therefore carts off the loam, or carts upon it beach sand.

We could produce a vast body of evidence to demonstrate that beach sand is better adapted to develop the cranberry than any other soil; but the cases adduced are sufficient.

There is another reason, though, which should not be lost sight of, why this sand is so much better than any other soil. It is light porous, and is almost incapable of supporting weeds. It admits the atmosphere freely to the roots of the vine, and is found to be the only soil in which the rank weeds can be effectually kept down. It will thus be clear to the reader, that in such a situation, the plant can throw out its runners in every direction, and having no weed to contend against, will therefore spread readily, and soon become matted, a condition of the yard towards which the practical man looks with anxiety. If you are about to make the attempt to cultivate the cranberry, if possible, obtain beach sand in which to set out your vines; or coarse sand when the former cannot be obtained, but the white is preferred.

Peat is found to be excellent, in fact, next in value and importance to the beach sand, for the growth of cranberries. But peat wants management and care in its preparation, in order to be made useful to the vine.

In selecting a peat swamp to be converted into a cranberry patch, it is necessary to take off the top turf, or grass, and if possible give the yard a little *incline*. When this is done, it is unsafe to plant at once. If you do so, you will find that the peat will in the following summer cake and crack. It will be hard on the surface, and some few inches below stiff and dry. The veriest tyro in cranberry cultivation knows that such a condition is very bad for the vine.

How is this difficulty obviated? Prepare the surface as we have stated above, and leave the yard exposed to the frost and weather for one year. When the frost is thawed out of it, it will crumble and be powdery. It will never cake afterward. It will be light and porous. You may then with safety plant your vines, and with moderate attention they will do well.—*Pioneer Farmer*.

What will you do with your Sons.

We find in the *American Journal of Education* some thoughts in relation to the agricultural profession, to which we invite the earnest attention of our readers:

"FARM LIFE A SCHOOL OF TRUE MANHOOD.—The men who have left their mark upon the ages in which they have lived, have done a great and noble work for the race, have been, with few exceptions, men of noble physical mould. The foundation of their greatness and of their fame was laid in the patient training of their physical powers. Such a man was Washington, and most of the worthies who were associated with him in the struggle for our liberties. Such were Clay and Webster, and many of their contemporaries in our national Senate. Their early days were spent upon the farm, and the thoughts of their declining years were given to the improvement, and the cultivation, and the embellishment of their respective homesteads. Ashland and Marshfield will long be scenes of pilgrimage to the husbandman as well as the patriot.

"The whole tendency of farm life is to develop the body healthfully and symmetrically. The child is not pent up in the narrow back yard of a city dwelling, nor turned into the thronged and filthy streets to pursue his sports. His eyes open first upon green fields and fragrant meadows, and his first footfall out of doors is upon the matted grass beneath the shadowy trees of his rural home. He drinks in health from every breeze, and all the scenes around him call forth that playfulness which performs so important an office in our early training.

"So this leads us to speak of the influence of farm life upon the home virtues. No occupation can be more favorable to the cultivation of those qualities which are the charm of the domestic circle. The farmer is much more at home than is possible with any other men. How many are there in our cities who only see their families at evening, or on Sunday? They live for their business, and this, from its location, takes them from home early and late. How many, from the same cause, forsake house-keeping and huddle into boarding-houses and hotels, where the charm and beauty of the family, as God instituted it, is entirely lost; and children fall under a thousand unfriendly influences that would never touch them at home! With the best arrangements wealth could command in the city, it is well nigh impossible to keep children under the influence of their parents, so that they shall have a distinct family character, and bear the moral, as they do the physical image of their progenitors. Parental influence is dissipated amid the varied social influences to which they are subjected from their earliest days. Then what perplexities harass the man of business in the city—his capital often invested in profitless enterprises, exposed to the depredations of dishonest men, betrayed, cheated, and ruined by knaves and bankrupts. From the very character of his business he has to trust far more of his available means to the integrity of his fellows than the cultivator. His debts are often scattered over a wide extent of territory, and collections are not only expensive, but exceedingly uncertain. But his commercial credit depends upon this uncertainty, and he is often compelled to fall back upon nothing, a ruined man.

"Ninety-five failures in a hundred, among most business men in the city, tell a sad tale of the perplexity and sorrow, the corroding cares and anguish of mercantile life. How can a father, goaded with these anxieties, from the beginning to the end of the year, do justice to his children, even if his business allowed him to be with them a part of the time? He is not in a frame of mind to superintend their education and to perform a father's office.

"The farm preserves the family in its integrity. The home has in it that charming word, and that more charming thing, the fireside, around which parents and children gather, and where the bright and cheerful blaze upon the hearth is but a true type of the flame of love that glows in every heart. The parents have been drawn together, not by sordid motives of wealth, or the ambitious desire of social display, but by the personal qualities seen in each other. The glory of the fireside to the husband is that the wife is there; and to the wife that he is there who is the head of the woman, and the hand is that home circle. Here they gather at morning and evening, and at noon. Their board is almost always surrounded with the same circle, and here they spend the long winter evenings together."

Best time to Cut Timber for Fencing.

Late autumn is the best time for felling timber for almost any purpose, and it is particularly so when the timber is to be worked up into rails or stakes, or posts for fencing. At that season of the year the new wood has arrived at its complete maturity, and there is less sap and albumen in timber than there is at any other season of the year, which albumen, when exposed to the influence of the weather, hastens the decay of timber. If timber be cut and split out, in the latter part of autumn, the seasoning process is much more gradual and perfect, because the grain of the timber contracts more equally and uniformly, rendering the timber firmer, and less porous, and less cracked, then when cut at many other seasons of the year. Besides, timber that is cut in late autumn, and split out, or sawed out before spring, will not "powder post," nor be injured by the worms working in it, nor be injured by dry rot, as is the case with timber, many times, which has been cut at some other seasons of the year. Fence posts and stakes, particularly, no matter what the kind of timber may be, when felled and split out in late autumn, will out last other posts and stakes, of the same kind of timber, which may be cut at a different season of the year, by several years, according to the time it may be cut. Reason teaches us that this is so, and the experience of the most successful experimenters in timber, furnish the most indubitable testimony to substantiate the fact.—*Scientific American*.

HARD ROAD.—This horse, so well known to many of our readers, has been sold by Mr. Rider, of Ticonderoga, to Mr. J. W. Ficklin, of Albemarle county, Virginia. Mr. F. intends to keep him exclusively for breeding, and we have no doubt some fine stock will be obtained from him through the well-bred Virginia mares.

Maryland State Fair.

FREDERICK, MD., October 27, 1859.

EDITORS CO. GERRY.—I arrived here yesterday morning, and found the Maryland State Fair open, with a fine exhibition, equal I think to those I have previously attended at Baltimore. The attendance of people was as large as at the fairs held at Baltimore. Frederick is a very fine old city of about 10,000 inhabitants, situated in the midst of as fine a farming district as can probably be found in the U. States. It is decidedly the finest portion of Maryland, and the history of this section of the State shows it to be one of extraordinary fertility, and evidently well farmed. Farms in this district are selling when offered at from one hundred to one hundred and fifty dollars per acre. The show grounds adjoin the town, occupying the grounds attached to the old U. S. Barracks of Revolutionary fame, where the Hessian soldiers were confined. The barracks are in good order, and a portion of them used by the State as store-house for arms, &c. About 15 acres are included within the inclosure. There is a very fair exhibition of stock. Mr. McHenry's and Mr. Bowie's Devons, Mr. Merryman's Herefords, Mr. McHenry's Alderneys, and some Short-Horn, grades, and working cattle, fully equal to former shows. A very respectable show of horses—among them the Cleveland Bay stallion of Dr. Woods of Virginia, selected by Sanford Howard, Esq., of the Boston Cultivator, and which does great credit to his judgement. He was very much admired, and I was gratified to be one of the committee to award the *blue ribbon*, which I wish might ever be as worthily bestowed.

The show of sheep and swine was very good, and some very choice ones in each of these classes. The implement show was a very good one—not as extensive as at some former shows, but of excellent quality. The other departments were very fairly represented, and the fair may be considered a decided success, and must be gratifying to President Merryman and his associates. The excitement at Harper's Ferry has diminished the attendance somewhat, that place being but a few miles distant; but I think from the attendance yesterday and the appearances for to-day, that the receipts will be satisfactory.

I met here John Jones of Delaware, who as ever, was ready to work—being engaged on several important committees—Mr. W. H. Sotham, and Mr. Granger of Saratoga, of our State. I met many Maryland gentlemen, among others, Mr. J. H. McHenry, O. Bowie, Col. Kimmel, Mr. Sands, Mr. Worthington, Col. Carroll, Mr. Goldsborough, and the President, Mr. Merryman, who was attentive as usual not only to the duties of the fair itself, but also to gentlemen from a distance, who were properly cared for.

The herds of Cattle were judged yesterday. Mr. Oden Bowie took the prize on the Devon herd, beating Mr. McHenry's Chicago United States Prize Cattle, which the Marylanders consider a great triumph—Maryland at Chicago beat the Union, and now a Maryland herd not exhibited at Chicago, beats the prize herd; some who were at Chicago I heard suggest, that possibly under other auspices, a different award might have been made—but one thing is certain, both herds were very fine indeed.

The Alderney and Ayrshire herd premiums

were awarded to R. and J. H. McHenry; Mr. Merryman, the Herefords; and Short-Horns to John McCloskey. Mr. Howard McHenry's prize working oxen were first-rate, and hard to beat any where.

Mr. McHenry's South-Down Sheep were very fine, and received the first prizes. A trial of speed took place in the afternoon, and was not such extraordinary speed as to have distanced the noted trotters, but yet quite fast enough to satisfy the farmers that some good roadsters were exhibited before them.

On the return of the Excursion train from Frederick yesterday afternoon, to Baltimore, the pick-pockets did a paying business, while the passengers were crowding in. In the car in which I was, two gentlemen who were in company with me were relieved of about \$250, another of \$60, and in the adjoining car another of \$180, and so on—and the marauders escaped. It is hoped the good people of Frederick may have arrested some of them.

I was very much gratified with the Fair—it is evidence of progress—and the intelligent farmers, their wives and daughters, there examining with much interest the various departments of the exhibition, showed that this effort of the Society was appreciated and would result in good.

The weather was quite chilly yesterday, and fast evening a cold rain storm set in—but all is fair this morning, and I think the day will be a successful one.

The reception always extended to visitors from the North is ever most cordial, and I very much regret that I could not accept several pressing invitations to visit gentlemen at their farms and plantations. Farming is evidently decidedly advancing in Maryland, and I have rarely met gentlemen more intelligently engaged in advancing the best interests of agriculture, than those I have met here. May the good work go on until our whole country is redeemed, and made to be what it should be under a good system of farm culture.

I was glad often to hear our friend John Johnston spoken of as having done great good by his example, and by his writings to the farmers, giving his practical experience, which many I am certain are considering with great interest, and preparing to follow as far as their circumstances will permit.

Potting Hyacinths.

The present is the proper time for potting hyacinths and other bulbs, for early blooming in the house. Drain the pots well, by putting a few pieces of broken pots at the bottom; on that a layer of moss; then fill in with a compost of equal parts of leaf mold, river or lake sand, and good, rich garden mold. Let the bulbs be pressed down close, with their tops just above the soil. Keep growing in a moderate temperature. When grown in water, hyacinth glasses should be obtained, the colored ones being the best, and the water should be kept at a moderate temperature. In renewing, use milk-warm water, not that which is cold.—*Fr.*

Let a good thing be well said. Expression is valuable, as well as thought.

The American Farmer.

Baltimore, December 1, 1859.

TERMS OF THE AMERICAN FARMER.

Per Annum, \$1 in advance—6 copies for \$5—13 copies for \$10—30 copies for \$20.

ADVERTISEMENTS.—For 1 square of 8 lines, for each insertion, \$1—1 square per annum, \$10—larger advertisements in proportion—for a page, \$100 per annum; a single insertion, \$15, and \$12.50 for each subsequent insertion, not exceeding five—payable quarterly in advance.

N. B. WORTHINGTON,

Publisher of the "American Farmer,"

CARROLL HALL, S. E. Corner Baltimore and

Calvert streets, Baltimore.

A large portion of our subscriptions run out with the present number. Will not our friends who bear in mind the date of their subscriptions, do us the great favour (if now due) to remit the amount by mail, at our risk. By doing so promptly, they will save us a great deal of labour in making and enclosing bills, and oblige us much beyond the little trouble it will cost them. We cheerfully take the risk of the mail, and no one need hesitate to remit for fear of loss. Wrap a gold dollar in a small bit of newspaper, and enclose to us in a letter carefully sealed.

We are indebted to R. H. Dulany, Esq., of Loudon Co., Va., for a list of new subscribers, and a promise of others. It is very often we have to thank our friends for unsolicited favours of this sort. It gives us the strongest and most practical assurance that our efforts are acceptable to the community for which they are intended. May we not enlist the interest of hundreds, who with little trouble to themselves, in sending on their own subscriptions, may send the name and subscription of one, two, five or ten more.

We are indebted to J. H. Greenway, Esq., for a basket of very beautiful apples from his farm in Harford county. The varieties were the Baldwin, the Belle Fleur, the Swaar and the Jonathan—all of which succeed well with him. Mr. Greenway informs us. We have rarely seen more beautiful specimens.

Buist's Almanac and Garden Manual for the year 1860, designed to furnish concise hints to Farmers and Cottagers on Vegetable, Fruit and Flower Culture, with a select list of the most approved varieties of Vegetables, Fruits and Flowers, by R. Buist, author of "American Flower Garden Directory," &c. A convenient and useful little manual, from an experienced source.

President of the Agricultural College.

It gives us great pleasure to be able to state that Professor Benjamin Hallowell, elected President of the Agricultural College at the meeting of the Board on the 4th of October, has accepted the appointment, and is now diligently employed in the prosecution of his duties. Mr. Hallowell's high attainments and reputation as a man of science, his well known literary qualifications and his long experience in the education of young men, combine to fit him well for the position. But more than this, he is an eminently practical man, and deeply interested for many years in the application of science to agriculture. His appointment was entirely unsought, nor was it known to any member of the Board that he would accept it. The Trustees sought his services on account of his peculiar fitness for the position, and it is matter of congratulation to every friend of the College that he has found it compatible with his previous engagements to take the appointment. We have spoken heretofore of the eminent qualifications of the gentlemen chosen to fill the other chairs.

In a private note from Mr. Calvert, who seems to devote himself to the College as exclusively as if he were a salaried officer, and under special obligation to do so, he expresses the utmost gratification at the manner in which the good work is progressing, and says, "we need not now fear that we will not have the best Institution in the world." This is emphatic, decidedly, but Mr. Calvert is not in the habit of speaking lightly. The views of a prominent gentleman, which we publish on another page, will be read with interest.

The very fine horse "Arabian Pompey," exhibited at the Fair of the Maryland State Agricultural Society by Mr. Berry, of Washington county, was purchased by Messrs. Oden Bowie and Richard Duckett, to take to Prince George's county. The sire of this horse was a horse of the same name, which was purchased and used as a model for the equestrian statue of Jackson by Clark Mills. Mr. Mills paid \$800 for him and sold him for \$1,200 to a company, who took him West. The purchase of Messrs. Bowie & Duckett is said to be superior in points and beauty to his sire. His color is a dark dappled bay. His dam was a Logan mare from Pennsylvania, a Logan got by a thorough bred horse of Botts' "Gehanna."

We are indebted to Mr. Smyrk, of Baltimore county, for fine specimens of corn, turnips, and sugar beet from his farm.

Agricultural Societies in Virginia.

We are gratified to hear of the success, this season, of the numerous flourishing societies in Virginia, both State and county. The Central Society at Richmond, the State Society at Petersburg, and the Seaboard Society at Norfolk, have all had excellent and successful exhibitions. There have been numerous others, also, at different important points—the Valley Agricultural Society at Winchester, the Loudon County Society at Leesburg, the Society at Lynchburg, &c. A society has recently been organized which will hold its exhibition at Alexandria, and of which the Hon. W. C. Rives has been elected President. The multiplication of such associations is an evidence of the growing interest in agricultural improvement, and when judiciously managed are powerful instruments in the cause. There is no community which exhibits more enlightened concern, among its leading citizens, in behalf of agriculture, than the noble Old Commonwealth of Virginia.

— We felt justified in our last issue, in using strong language of indignation upon the inference it was impossible to avoid, that information of a strictly confidential character had been carried from our office to that of the "Rural Register," and its use authorized in the columns of that paper. One statement of fact thus carried, and thus used and perverted, we could not of course anticipate what would come next, and it was necessary in our own defence to denounce promptly the character of the transaction. We have now, in explanation, the emphatic assurance that this information was obtained in an unguarded conversation, without the least reference to the controversy in which it was used, and of course without any authority whatever for any such use of it. We are glad to have the matter thus relieved of its most unpleasant aspect. That a communication in its nature confidential and obtained in a private conversation, should be used for the purpose it was, without the knowledge or authority of the party through whom it came, is another aspect of it, which it will be somewhat more difficult to explain.

— *Saturday Evening Post*.—We ask our readers' attention to the advertisement of the *Saturday Evening Post* on our cover. The *Post* is long and well known as an excellent Family Paper, and its enterprising publishers, it will be seen, offer new and increasing attractions. We like established and well tried institutions like the "Evening Post," and hope to see it flourish with increasing vigour. The "Post" has always a well selected Agricultural Department.

The Maryland Devons.

When the British whipped the rest of mankind and we whipped the British, Young America very naturally thought herself at the head of the list in fighting matters. Something after the same fashion things stand with some of our Maryland stock growers. At the great United States Fair at Chicago, the beautiful Devon cattle of Mr. J. H. McHenry carried off a large portion of the premiums, whipping all the United States, (who thought it prudent to compete,) but coming back to Maryland to our State Fair, are in turn vanquished by the herd of Col. Oden Bowie. A correspondent of the *Country Gentleman*, the estimable Secretary of the New York State Agricultural Society, we "guess," whose letter will be found on another page, says it was suggested that under other circumstances the award might have been different. This is a pleasant view to take of the matter, perhaps; but as chairman of the committee on Devons of all ages, and having our attention especially directed to every animal on the ground, we can bear emphatic testimony upon the matter, and say that it is no discredit to the really beautiful and high bred stock of Mr. McHenry, that they seemed to be in some degree, however small, surpassed by those of Col. Bowie. As substantial evidence of the estimate placed upon his stock, Mr. Bowie sold four male calves and yearlings on the ground for \$100 each, and five heifers at \$125 each—being \$1,025 for nine; and was offered \$300 for his four year old prize bull. We have shipped two of these prize bull calves, with other stock, to Wm. L. Brandon, Esq., of Mississippi, who has been breeding the Devons for many years. One of these took the first premium of the State Society over one picked, by excellent judges as the best of eight or ten, from the celebrated herd of George Patterson, Esq.

— We are indebted to a friend connected with the Naval Academy at Annapolis, for a copy of an address delivered by Henry Ridgely, M. D., before the Agricultural Society of Kent Co., Delaware. Our correspondent says: "Dr. Ridgely is well known to me as among the best informed of the many intelligent farmers of Delaware. The farm on which he resides would not produce the seed sown when he took charge of it—it is now surpassed by few in the State." This being the case, the doctor is "one who ought to speak," and although we are obliged in general to eschew addresses on account of their length, we hope to have the pleasure hereafter of presenting this, in part at least, to the readers of the *American Farmer*.

President of the N. Carolina Ag. Soc.

We see with pleasure that our greatly esteemed friend, Dr. Wm. R. Holt, of Lexington, has been elected President of the State Agricultural Society of North Carolina. It is the right man in the right place, we think decidedly, for we know him to be one of the truest, most energetic and intelligent friends of agricultural improvement to be found anywhere. The doctor is a grain and stock grower of the western part of the State, and we dare say had or might have had on exhibition at the late Fair, blooded horses, Devon cattle, South Down sheep, Berkshire hogs and game chickens. We do not know that the great lubberly Shanghai has gained much foothold in the old North State, but we rather suppose he will hide his diminished head during the present administration, in presence of the plucky little "games" from the neighbourhood of Lexington. We do not mean, of course, to insinuate that the President of the Society values the Game for his fighting qualities, but he is strong on "blood" in bird or beast, to say nothing of the "Lords of creation." Take his list through, as enumerated above, and we think his taste will be admitted to be unexceptionable.

DeBow's Review.—We receive regularly this able monthly. Besides the contributions of the editor, the *Review* is sustained by some of the first writers of the South, prominent among whom we find always the distinguished author of "Sociology for the South," George Fitzhugh, Esq., of Virginia. The *Review* is very Southern in its sympathies. The contents of November number are: *American Agriculture, Life and Liberty in America, Free Negroes in Hayti, Central American Question, State, Federal and Territorial Authority, Liberia and the Colonization Society, Union North and South, &c.* Published at Washington and N. Orleans. The 27th volume begins with January number; price \$5.

Illustrated Annual Register of Rural Affairs, for 1860, with 180 engravings. Albany: Luther Tucker & Son.—This valuable little annual (number six of the series) is received. It has a hundred pages of valuable matter, prepared expressly for it by the very competent editor, J. J. Thomas, and is worth four times the price asked for it—only 25 cents. The worthy publishers of the *Cultivator* and *Country Gentleman* deserve the thanks of the agricultural community for adding to those popular publications this handsome and valuable annual.

FINE HOGS.—We observe that our friend, Peyton Johnston, Esq., of Richmond, has been dealing largely in the premiums of the Virginia societies at Richmond and Petersburg—having received some \$200 of their *siller* in token of their good opinion of his stock. That it was well merited we do not doubt. Mr. Johnston has in his pens the Improved Hampshires, (of which we have been able, after an order of nearly a year's standing, to procure a very handsome pair,) the Chesters, the White Berkshires and the Virginia Graziers. He is one of the most careful breeders, and his trusty man, Jim Armstrong, having entire control of his stock, implicit reliance can be placed upon the purity of the several breeds, and on their being strictly what they are represented to be. He is filling orders as fast as he can do so, from all parts of the country, and with such confidence in the character of his stock, that if they fail to come up to his representations after four, or even six months, in careful hands and with proper attention, he is quite willing to have them returned to him and pay costs of transportation and keep in the meantime. With a Hampshire just received by ourselves, Mr. John Glenn, of Baltimore county, has also received several beautiful Chesters and White Berkshires.

Forty Bushels of Wheat to the Acre.

A correspondent in Carroll County, Md., says: "Some people talk about making forty bushels of wheat to an acre of ground. I am upwards of sixty, been farming all the time, trying my best, and know nothing about it yet. Now, in order to learn something in that business at this late hour, I will give a premium of five dollars to be instructed how to do it, the fertilizers to be furnished at my expense, with the necessary instruction how to prepare the ground, the kind of wheat to sow, and time and manner of seeding. I hope somebody will take the five dollars, and I would give it to you as freely as to any man that walks on top of the ground."

We should be pleased to take our friend's money, but would not be willing to ensure him forty bushels of wheat to the acre under any process of management, or at any cost that would pay a fair profit on the operation. Still we are not a disbeliever in forty bushels to the acre, as perhaps our correspondent is. The late Col. N. Goldsborough, of Talbot county, told us of a crop of wheat he had made, *after corn*, averaging forty bushels on forty acres without guano. Col. Goldsborough's land, besides being naturally fine wheat soil, had been highly improved with the natural resources of his farm, marl, marsh, farm-yard and stable

manure, &c., and the corn had been planted on a clover sod. In other sections we have crops of forty bushels on clover fallow; and our friend, Mr. Hewlett, whose farming we have so often spoken of, averaged thirty-five bushels in six successive years, and one of these years made forty-two to the acre, on what would be considered the poorest wheat land to be found, viz: a deep and, a few years before, blowing sand, but improved with lime, bones, guano and grass seeds, and which, after the wheat crop, brought three heavy crops of grass without additional manure. But, after all, these are exceptions.—Why is it not done very often? Simply because there are so many who do not believe it can be done at all. We are not in favor of extravagant outlay for a single crop, but let us believe that until we get something like forty bushels of wheat per acre, we are not doing what can be and ought to be done, and determine not to stop our efforts at improvement short of that mark.

Mr. Fitzhugh's Self Raker.

The agricultural community are under constant obligations to inventors and machinists for the improvements they are developing in our agricultural machinery and implements. We found on exhibition at the Maryland State Fair, a Raking Attachment invented by Mr. Benjamin Fitzhugh, of Frederick. This Raker is especially adapted to the Manny Reaper, of which Mr. Fitzhugh is the agent in Frederick county, and affords to all who use that valuable machine the important requirement of a Raking Attachment at a cost of \$30. The Raker is simple and strong, and worked very satisfactorily last season in presence of a number of intelligent gentlemen of the county, who testify to the fact. There was also present another Raking Attachment, the invention of Mr. Young, of Frederick, which may be attached to any machine.

Grace Greenwood's "Little Pilgrim."—Our young friends will not, we are sure, forget the "Little Pilgrim," if they have already made her acquaintance, and if they have not, they ought to do so without delay. Read the advertisement and see the new things promised: a new story by good Mary Howitt, and "a true story" (think of that!) by the guiding genius of the "Little Pilgrim" herself. Send your money on quickly, little people, and put your father in mind to send his money for the *American Farmer*.

The cotton crop of Texas it is thought will reach 250,000 bales.

"The Inevitable Consequence of Cultivation by Slave Labour."

Our readers will be interested in the article headed "The Present Condition of American Agriculture," which we copy from that excellent weekly "*The Southern Field and Fireside*," whose agricultural department is edited by Dr. Lee.—We are glad to see so well exposed, a miserable libel on the State of Virginia, and the stale falsehood that "sterility and decay" are "the inevitable consequence of cultivation by slave labor." That any such consequence is the natural result of slave labor, nobody believes who really knows anything of the matter. On the contrary, slave labor being directed generally, by a degree of intelligence far surpassing, as we believe, the average of that which directs the farm labor of the free States, we expect to find better, more successful, more profitable culture, and more rapid strides in agricultural improvement, and we are not disappointed. If there is better farming, or more successful planting, or more rapid improvement of lands to be found anywhere, than in the slave States, we have yet to discover where it is. It is mere ignorance, or despicable malice, to charge that that is the result of slave labor which every well-informed person knows to be owing chiefly to scarcity of labor of any sort. Labor seeks everywhere the most profitable field of operations. The agricultural labor of the Southern States has in years past sought new lands rather than improve the old. Precisely the same thing has taken place in the New England States.—Whole towns, thousands and thousands of acres, in Massachusetts, have been depopulated and have gone back to their primeval condition, because it was thought more profitable to emigrate and cultivate the fertile lands of the west. It is only because the higher profits of cotton and sugar culture have drawn off the slave labor from the tobacco and grain growing portions of the South, and from the old to the new cotton lands, that "sterility and decay" is apparent anywhere. It is only because we have not slaves enough to fill the space they ought to occupy.

The suggestion of Dr. Lee in this connection is worthy of consideration. It is one that we have repeatedly urged as the true economy of the planting States, viz: that the system of husbandry be so modified as to embrace sheep husbandry, mule raising, and stock growing generally. That each individual planter would shortly find such a system more productive, than the exclusive planting system, we do not doubt. That property pursued it would result in improvement of land and consequent increased production, we have as little doubt. That such a system would enable the

States who hold slaves to occupy and make productive a much larger portion of their territory with the same amount of labor is a consideration of still greater importance. We do not fear, so much as Dr. Lee, the influence of free soil votes and free soil sentiment in Virginia and Maryland. When the "irrepressible conflict" shall be forced upon us, whether sooner or later, we do not doubt that these States will stand as one man in their true position. But the high price of slaves, caused by the eagerness to enlarge the cotton culture, is warring against the interests of these States by subtracting their necessary labor, and against the true policy of the more Southern States by concentrating the slave interest on too limited a portion of their territory. The Union of the Slave States against aggression, to be most effective, should be based upon interest as well as sympathy.

Essays on Peat, Muck, and Commercial Manures.
By Sam'l W. Johnson. We are indebted to Messrs. Brown & Gross, publishers, of Hartford, Ct., for a copy of this work.

Professor Johnson, of Yale College, as chemist to the Connecticut State Agricultural Society, has been doing faithful and effective service to the agricultural community of Connecticut, in guarding them against the impositions too often practiced by dealers in commercial manures. No man in the country, probably, has given more attention to the subject of manures, and the present publication consists of examinations of a large proportion of the many articles offered in the market, and an estimate of their value, together with numerous essays, all of which have been embraced in his reports of 1857 and 1858, as chemist to the Connecticut Society.

There is no point at which the farming community need protection more, than in the sale of fertilizers, and none at which they are so much exposed. The amount of money expended, has become an enormous annual tax upon our agriculture. Our farms are paying their thousands of tribute, and in a very large portion of our territory there is scarcely a man who is not spending a sum large in proportion to his means, in the honest hope of enlarging his products, of improving his land, and contributing to the general prosperity of the country. If they are disappointed in their expectation it becomes a grievous evil. It is money thrown away first; but it is worse than this—the disappointment of a reasonable expectation of profit, and a check upon the generous spirit of improvement, from which we expect so much for the advancement of agriculture.

Our present system of inspection applies in fact where it is least needed. The Peruvian Guano it is quite possible to get always, so direct from the importers hands that there is very small risk of adulteration, if proper care be taken. The Phosphatic Guanos are consumed, to very large extent, by manipulators and manufacturers of super-phosphates, who, buying in considerable quantities, can afford to ascertain and be assured of the quality of the article they purchase. Beyond these two leading articles our inspection laws do not extend. All the numerous brands of manipulated guanos, and all the super-phosphates, the ground and prepared bones, and many other preparations, pass unchallenged from the manufacturer to the consumer. If the inspection is worth anything, it should surely have its most rigid application to all such articles.

The plan of examination pursued by Professor Johnson would perhaps be most effective, viz: to get from time to time samples of such articles as are offered for sale, and have them analyzed, and the analysis, name of article, and merchant, promptly published. No one disposed to deal fairly could object to this, and carefully and systematically pursued, it would drive out of the market all others.

We frequently see published in the papers, that such an article had been examined by such a chemist and pronounced very superior; or a paragraph from some one that he had received a sample of a fertilizer for trial and found it very good. Such statements are entirely delusive. The merchant, whether honest or otherwise, would be sure to furnish the chemist with a good sample, and so of samples for experiment. It proves nothing at all as to the character of the article offered.

Professor Johnson mentions a case of another character, and which is, perhaps, of frequent occurrence. He examined, he said, an article of a certain brand offered in the market, and found it the best super-phosphate he had ever met with; but several years after found the same brand almost worthless. The manufacturer had made a superior article at first to give it character, and made his profits afterwards by selling one that was worthless. The subject is one of most material consequence, and well deserves the attention of those whom it concerns.

Please observe in the sewing machine advertisement of Ladd, Webster & Co., that their place of business is changed from 202 to 131 Baltimore street.

We observe in the *Boston Cultivator* a notice of the arrival of a Cotswold buck, purchased in England by Mr. Howard, for Dr. John B. Woods, of Albemarle county, Va.

FLORICULTURE—December, 1859.

Prepared for the American Farmer, by Wm. D. Brackenridge, Nurseryman, Gooenstown.

Under ordinary culture, the greenhouse and conservatory during the present month, will not be furnished with a very gay assemblage of flowers, as most of the *Chrysanthemums* will be passing out of bloom; yet still, if the gardener during the past summer and fall, has looked well ahead, and been active in propagating and growing the proper kinds of plants, a very attractive show of flowers may even now be had; these will consist principally of *Camelias* that have been brought into bud early last spring, *Euphobias*, *Sweet Violets*, *Euphylliums*, *Monthly Carnations*, *Salvia fulgens* and *Involucrata*, *Linum triginum*, *Gesneria zebrina*, *Catalonian jasmine*, with *Steevias* and *Heliotropes* in the warm end of the house.

In cold weather start the fires briskly about mid-day, and in fine weather, give air only in the forenoon; do not let the temperature either by night or day exceed 60° Fahr.; water the plants very sparingly at this season, shifting all such plants as require it, into larger pots. Keep the pathways damp, so as to prevent the raising of dust; pick off all decayed leaves, and keep the plants neatly tied up to stalks, observing to give the whole house a thorough clean out, at least once every week.

Camelias.—Towards the end of the month these will begin to bloom freely, at which time begin to give water more liberally at the root, syringing occasionally overhead in fine weather.

Calceolarias will require to be repotted; use a compost of friable loam, well rotted leaves and sharp sand—in about equal proportions, and if the atmosphere of your house is dry, syringe the whole frequently, to keep down the red spider, a pest to which the *calceolaria* is very subject.

Lilium lancifolium and *longiflora*.—These should now be potted in a mixture of leaf-mould, loam, and sand; do this work without delay, as Lilies do not like to be disturbed after they begin to grow.

Verbenas that have been struck by cuttings in the fall, should now be placed in 2 or 3 inch pots; shift such plants as are already established, and wanted to bloom early, into larger pots.

Chrysanthemums—after done blooming. For treatment see last month's memo.

Victoria and *ten-week Stocks* should be shifted into larger pots; keep them in a light airy place, close to the glass.

Mignonette, if in small pots, ought to be shifted into larger ones before the roots become matted around the pots; observe to drain the pots well.

Monthly Carnations and *Pinks* may now be placed in the pots in which they are to bloom, and cuttings struck in the fall, should now be put in pots of 3 inch size.

Pansies, from seed or division of the roots, should be shifted into larger pots; use a rich, free sandy loam for this purpose, and place the plants in the coolest part of the house, or in a cold frame, where they can be protected from frost.

Gladiolus, for spring flowering, may still be potted.

Calla Ethiopica.—Such roots of this not before repotted, should now be attended to, and others

now in small pots, and wanted to produce strong flowers, may be shifted into larger ones.

Ascleas, in a dormant state, will at this time require but little water; to those removed to a warmer place for early blooming, a little more ought to be given.

Gloxinias, wanted for early flowering, may now be shifted and placed in a warm part of the house.

Heaths and *Epacrises* require to be kept in a cool airy part of the green house; now is a good time to repot such as may want it; put in cuttings of these, as well as of *Diosmas* and other plants of a similar nature and habit.

Cinerarias should be kept growing, by constant shiftings into larger pots, as the plants progress in size; syringing them overhead to keep down the Aphid.

Palargoniums.—For treatment see last month's memo.

Amaryllis, in a dormant state, may now be repotted and placed in a warm part of the house.

Auriculas, *Carnations* and *Sweet Violets*, in frames or pits, should receive abundance of air in fine weather and but little water at this season of the year; in cold weather, cover the glass with thick mats made of rye straw.

[Not having received Mr. Brackenridge's notes in time, we are obliged to repeat those of last year for same period.—Ed.]

American Horses in England.

The following paragraph from the *The Field* shows how the recent races, in which American horses competed with the English, have affected English jockeydom:

The American horse, Starke, puts all doubts aside as to the lasting qualities of the importations from the Great West. His running in the Goodwood Stakes proved the cleverness of his owner and his trainer. It has induced *habitués* of a British race-course to believe what they have hitherto denied, that natives of other lands can train and "manage" a horse as well as those of their own; and it has let them into a little secret in regard to the American nation in particular, namely, that friend Jonathan of the New World is every bit as good a tactician in matters equine as his elder brother of the older one, yept Johnny Bull. The match which this identical nag lost at Newmarket drove the Britishers off their guard, and enabled his party to invest his money at a capital price. They won a large stake, and have amply reimbursed themselves for their outlay in the expense of purchasing horses and importing them to England. The talent of that go-ahead people will not again be questioned. It has been displayed to wondrous advantage in five instances on English turf. Winning one *Cesarewitch*, and being beaten by a head only for a second with *Priores*; winning a Great Yorkshire Handicap with the same mare; and now winning a Goodwood Stakes on Wednesday and the Bentineck Memorial on Friday, with a horse landed on these shores but a few months since, and a nursery Stakes on the latter day with a colt imported at the same time—have set all disputes on the point of cleverness at rest. Civilization and learning have always traveled westward, and the sons of New York have in horse-racing shown themselves to be the most "learned Thebans."

[For the American Farmer.]

Ploughing Under Vegetable Matter.

WINCHESTER, VA., 1859.

That chemical change which vegetable matters experience when ploughed under, may well elicit the attention of scientific agriculturists, for it appears never to have been satisfactorily explained. Much diversity of opinion among practical farmers has existed for centuries in relation to the fertilizing advantages derived from ploughing under vegetable matters; some asserting that it confers more fertility to the soil than the best manure, and others attributing to it the total failure of their crops.

It appears to me that these contradictory opinions can never be definitely settled until science can demonstrate the true character of the decomposition to which they are subject, and the qualities of the product. From the few opportunities offered to my observation, I was induced to believe, from the appearance of the residue of this decomposition when brought to the surface, and from the fact that it is destitute of fertilizing properties, that vegetable matters when ploughed under are decomposed by a chemical change similar to that which they are known to experience upon the surface; but this opinion I now deem erroneous—because similar circumstances are indispensable to generate similar chemical changes in all substances—therefore this process cannot be *eremacausis*. Von Thier informs us that the Italians prefer the fertilizing results obtained from ploughing under a crop of the white lupine to the best manure. Their practice is to sow the seed of the lupine upon the stubble after harvest, and plough under the succeeding fall. They assert that by this method they impart the utmost degree of fertility of which the soil is susceptible. The ability to make abundant crops and at the same time to increase the fertility of the soil, without additional labor or expense, I consider the perfection of agricultural science. Von Thier was disposed to attribute the fertilizing value of the lupine to a peculiar mucilage which it contained, but this opinion is certainly erroneous, for similar fertilizing results have been obtained by ploughing under luxuriant crops of clover and peas, and I assert without fear of contradiction that the same fertility will be produced by covering the surface closely, with any substance whatever, for the same length of time—therefore the fertilizing value of the lupine cannot depend upon any peculiar quality in the plant itself.

The agricultural chemists assert that the fertilizing qualities of leguminous plants such as peas, clover, &c., are derived from the atmosphere during their growth. This idea is purely theoretic, because it cannot be proved that the atmosphere contains any fertilizing principle whatever, and practical farmers know that although a free circulation of air is indispensable to vegetable life, yet all cultivated plants require substantial food. Most scientific writers, however, teach that the fertilizing results obtained from ploughing under vegetable matter is due to their decomposition, that is, they are converted into manure. From every experiment that has passed under my observation I am induced to believe that this opinion is erroneous, that the soil is not fertilized by ploughing under vegetable matter of any kind,

provided they be ploughed in a soil upon which they did not grow. It is a fact universally admitted that all vegetable substances, if saturated with water, or mixed with lime or ashes, are converted into manure when ploughed under: that they do not form manure under ordinary circumstances is to be attributed to the fact that they do not experience the only chemical change which leaves a fertilizing residue, namely, the process of putrefaction. That they do not experience the process of fermentation is plainly manifest, for this process requires both heat and moisture; and the product, an acid humus, (found only in marshes,) is known to be pernicious to the growth of cultivated plants. Therefore, ordinarily, vegetable matters do not experience the process of fermentation. I have arrived at the conclusion that all vegetable substances when ploughed under, and thus deprived of a contact of air, are decomposed by a peculiar process unknown to science.

Respectfully,
R. T. BALDWIN.

The Agricultural College.*To the Editor of the American Farmer:*

SIR: From many complimentary testimonials which I have received, relative to the Maryland Agricultural College, I have selected the enclosed, because it comes from a distinguished gentleman who was for many years connected with one of our first literary institutions, and has since joined the editorial corps. I send it to you with the hope that it may find its way into your widely extended and useful journal.

Very respectfully, your obedient servant,
CHAS. B. CALVERT.

"Having carefully examined the plan of your Agricultural College, so far as set forth in the circular, I take a larger sheet than I am accustomed to use for the purpose of expressing to you my admiration of the plan, the deep interest I feel in it, and the regret, which it would seem that every good citizen of your State and of the Union must feel at the want of funds for carrying it into effective operation, by completing the buildings, &c. You are certainly right in not making your institution an Agricultural College merely. That is the rock on which many a craft now just put afloat, or about to be launched, will split. You want to make farmers. That is well. But what is more, you want to make men. You do well to commence with them as early as twelve. The projectors of your College seem to have comprehended the true object, and to have selected, so far as I understand the matter, the best means for accomplishing it—to take the boy and make him a man, with heart, head and body, soul, intellect, capability of physical endurance to be a farmer, if that shall seem best; but to be a man, at all events, if the appliances of education can make him such—a candidate, equipped in heart and mind and body for whatever useful calling he may seem best adapted to, after you have done for him what you can; one who will not selfishly indulge No. 1, but will feel that his life-energies are given for a higher purpose, and that he is bound to serve his generation in the profession in

which he can provide reasonably for himself, and do the most for others.

"My interest in such an enterprise is intense. The mission of American institutions, if they are to have any thing great or glorious in the future, is to crown labor with honor; to give to the men who create wealth the power to use and to control it; to make the producers, if not rulers, at least *fit to rule*; men who will not submit to be ruled unjustly. I cannot bear the idea of a class to be governed, and a governing class. Self-government is what we started for seventy years ago, but, unhappily, we are making no progress, or if any, the wrong way. I look to your Institution and others like it to produce slowly, perhaps, but surely, a change for the better. The tendency, if you carry out your plan energetically, will be to give us men, who, like the Father of his Country, can serve their age on the farm or in the field, in the Cabinet or in the Presidential chair. I wish to see the time, or at least to foresee it coming, when great and good men, fit to be the servants of the people, will be looked for not in one particular calling, and that not the most useful, but in all callings, and most of all in the noble calling in which our first President passed the morning and the evening of a magnanimous and useful life. But I must stop, and may God speed your good and well-begun enterprise."

The following list of premiums, furnished us by Capt. Strandberg, will show that his enterprise in exhibiting his beautiful cattle has been very liberally rewarded, and that he has made a very successful campaign at the cattle shows:

A List of Premiums awarded to Capt. H. J. Strandberg's herd of Devons, at the different Fairs this fall.

PENNSYLVANIA STATE SHOW AT PHILADELPHIA.

First premium for Devon bull, Richmond.....	\$20.00
Second " " cow, Butter Cup.....	20.00
First " " cow, Matilda.....	10.00
Second " " heifer, Beauty.....	10.00
Third " " bull and heifer calves..	10.00
Total.....	\$70.00

VIRGINIA FAIR, RICHMOND.

First premium for Devon bull, Richmond.....	\$100.00
Second " " cow, Matilda.....	75.00
Third " " heifer, Beauty.....	25.00
Total.....	\$200.00

PETERSBURG (VIRGINIA) STATE FAIR.

Second premium for Devon bull, Richmond.....	\$25.00
First " " cow, Matilda.....	50.00
Second " " bull 1 year, Baltimore	12.50
Total.....	\$87.50

SEABOARD FAIR, AT NORFOLK.

First premium for Devon bull, Richmond.....	\$10.00
Second " " cow, Matilda.....	10.00
Third " " bull 1 yr. old, Baltimore	5.00
Fourth " " bull, Enterprise.....	5.00

Sweepstake Premiums on Prize Animals.

For the best bull of any kind on the ground, Richmond.....	10.00
For the best cow of any kind on do. do., Matilda..	10.00

Total..... \$50.00

Making in all..... \$407.50

A gentleman is a human being, combining a woman's tenderness with a man's courage.

Present Condition of American Agriculture.

The November number of the *Working Farmer* has an article on "the present condition of American Agriculture," credited to the *London Farmer's Magazine*, which we have good reason to believe was written by one of the editors of the *Working Farmer*, and sent to England for its publication, as containing a truthful and instructive account of "American Agriculture." Feeling considerable interest in the character and reputation of that large class of citizens who own and cultivate the soil of the United States, regardless of geographical lines, we have read with some care the letters of the American correspondent of the *London Farmer's Magazine*, and we are sorry to say they do great injustice to the subject discussed, and especially to Southern agriculture and slave labor. We copy the following from page 255 of the *Working Farmer*:

"That Virginia, for the settlement of whose domain RALEIGH labored so long and so earnestly, and which was once the queen of all the sisters of the confederacy, should with 75,000 illiterate inhabitants, and about 3,000 copies of her agricultural paper in circulation, be reduced to the very verge of sterility and decay, will surprise no one who has studied the inevitable consequences of cultivation by slave labor."

That the above statement, made alike to the people of Great Britain and this country, contains a most pregnant and injurious error, we religiously believe, and feel abundantly able to prove, so far as it is possible to prove any negative proposition. The readers of a London agricultural magazine of high character and long standing, are told by an American agricultural writer, that "the inevitable consequence of cultivation by slave labor," is "to reduce a State to the very verge of sterility and decay," and compel its inhabitants to become alike "illiterate" and poverty-stricken. This is a serious, and even a terrible charge to bring against the agricultural industry of some fourteen or fifteen sovereign States; and we submit the question to an impartial world (if any such world exists, which is doubtful,) whether the *misuse* of any kind of labor, of money or other property, or the *abuse* of anything involves "inevitably" the condemnation of the thing, the property, money, or labor, wrongfully, or mistakenly employed? It is the want of adequate and abundant labor in the old State of Virginia to improve the soil and cultivate it properly, and not the existence of slaves, that places her tillage in a false position. The demand for laborers to go South has been so great and exhausting, that no farmer could afford to keep slaves enough to do full justice to his farm, and Virginia agriculture.

Field hands, that cannot earn over \$150 a year each, in the Old Dominion, will earn from \$300 to \$450 in the best cotton, rice and sugar districts in the South and Southwest, while the expense of taking a negro from Richmond to Alabama, Mississippi or Texas, will rarely exceed from \$25 to \$35. Indeed, as was well stated by Mr. HULL in his late agricultural address, no man can afford to work slaves and make only three and a half bales to the hand, when for ten or fifteen dollars a head his negroes may be taken to land that will yield seven bales or more to the

hand; and the higher cotton is, the larger the premium offered to abandon old plantations and all poor soils, and concentrate the entire force on rich virgin land. These facts cannot be refuted; and they prove beyond the reach of a reasonable doubt, that there are not slaves enough to cultivate at once and properly, the fields of all the northern and all the southern slave-holding States. Give Alabama, Mississippi, Florida, Louisiana, Arkansas, and the broad and fertile domain of Texas, what slaves their agriculture demands for its full development, and not one woolly head will remain in all the South out of those States.

Suppose a man should undertake to haul constantly what was a fair load for five mules, with two? He would naturally drive hard, wear out his team prematurely, make it look poor, mean and worthless, and after fretting for years at the weakness and inefficiency of his force, he might himself adopt the equally false and popular notion that mules are inferior to horses for all hauling purpose. Virginia has never had more than two-fifths as many slaves as the load to be hauled, or work to be done, required; and because those she did have failed to work a miracle, and each two perform the labor of five, every defect in her agriculture is charged as "the inevitable consequence of slave labor!"

"Truth is mighty, and will prevail;" and this is very near the exact truth. Slavery was hastily condemned eighty years ago; was tried afterwards; and when fairly tried, was found not guilty. But how shall we reverse the unjust verdict of condemnation?

Can it be done by pursuing a policy which originated in hostility to the institution—which invokes both the moral power and material aid of England, France and all Europe to crush it as a detestable thing, no better than piracy? If this condemnation is known to be, and felt to be unjust, why keep Virginia agriculture in a false position before the civilized world, in London journalism, to the serious detriment of Southern intelligence and character, and literally compel the noble mother of States to part with all her slaves, and depend exclusively on white laborers, who will vote ever with the North? Is it not time that we modify somewhat our present system of planting industry, and employ a part of our capital in sheep-husbandry and wool-growing, in which far less labor is needed, and of course no slaves from Virginia to prosecute the business successfully? The concentration of slaves on a comparatively small area by exclusive planting, is a virtual surrender of about two-thirds of all our present slave territory to freesoil labor, and its influence. This weighty fact has been too little considered. Every man who buys a slave from Maryland, Virginia, Kentucky or Missouri, opens the door a little wider, and invites free soil voters to settle in these States for agricultural purposes. Laborers, they must and will have; and we ask in all earnestness, where they are to come from? It is absurd to suppose that two negroes will perform the work of ten, or even five. It is suicidal to place slave labor in all the border States in this alike unjust and disadvantageous position. Our agricultural employments must be more diversified—spreading slave labor over many millions of acres of grazing lands—

instead of crowding more and more negroes into a few cotton fields.

The writer who attempts to describe for a foreign magazine "the present condition of American Agriculture," betrays as little knowledge of his subject in the Northern, as in the Southern States. He lauds Mr. MAPES and his *Working Farmer* most extravagantly, while he ignores the existence of the *American Agriculturist*, an older, and far abler journal, with some four or five times larger circulation. It is with no inconsiderable reluctance that we ever expose agricultural quackery like that of the Patent Office and *Working Farmer*; for by it, we make bitter personal enemies, and receive little or no thanks from the public. Not one man in a thousand has any idea of the amount of cheating now successfully practiced by selling nearly worthless articles under every conceivable false pretense as being of peculiar and great value. In the whole catalogue of agricultural humbugs, perhaps there is no more ridiculous than that based on the notion that an atom of potash, or one of sulphur, phosphorus or nitrogen, is "progressed" and improved, every time it forms a part of a living organism, as taught by the manufacturer of "MAPES' Nitrogenized Super-phosphate of lime."

—Field and Fireside.

Lampas in Horses.

DEAR "SPIRIT": Your correspondent, Nicholas Spicer, Esq., has an article in last week's number on Lampas, which (the article, not the lampas) contains a great deal of good sense. There are, however, one or two points on which I differ from him. He says that it arises from indigestion, and that colts and young horses are more subject to it than older ones, because less accustomed to stall feeding, etc., and consequently more prone to a disordered stomach. In my opinion lampas does not arise from indigestion, but from inflammation of the mouth, from whatever cause, generally from the continual growing of the teeth; and this is why young horses have it more than others, the teeth growing so much faster before than after they have attained their full size.

Your "Spiritual" friend says, further, that lancing the mouth is a useless and cruel waste of time. This I deny, having used this remedy with marked success. Common sense and everyday practice on all animals, man included, are, I should think, sufficient proof that the moderate use of the lancet cannot be otherwise than beneficial in allaying inflammation. As to the cruelty of the operation, that's all moonshine. I have more than once seen a doctor lance a child's gums, when it was asleep, without awaking it.

The pain that lampas gives a horse while eating, prevents a proper mastication of the food, and this disorders the stomach, thereby causing indigestion; therefore N. S.'s prescriptions of ginger, soda and aloes, is no doubt very beneficial in cleaning out the stomach, and thus making the horse feel more comfortable, but it will not cure lampas.

I am afraid, dear "Spirit," you will think me very fault-finding, but I can assure you it is much easier to pull down than to build up a house.—VANDER BROECK, in *Spirit of the Times*.

Progress of Scientific Agriculture.

Any one who looks back upon the progress of the past half century, will not refuse to admit that Agriculture has shared largely in the advantages resulting from scientific inquiries and improvements, and their practical application. The time has gone by when men were skeptical on schemes of novel innovation and doubtful expediency, or resolutely objected to every new suggestion or modern improvement. But there are those among us who have lived long enough to remember the days when gas was unknown, save as the mysterious term of philosophy, or when steamboats were deemed an impossibility, when railroads and their speed were not appreciable either in practice or utility by the minds of even intelligent men of the day, and when the man who would have hinted at ploughing by steam would have been looked upon as a madman; yet all these things have come to pass, and are now to us household words, while science has tamed the very lightning to our uses.

"Now wide the sun of Science flings his beams,
And Wealth her liberal fertilizing showers
Diffuses; while Industry, all nerve, but waits,
Impelled by them, to work such wonders, as
In days long flown and dark, had miracles
Been deemed."

The present method of British farming is based on great natural laws, which require men versed in science to explain and enforce, and men with enterprising, yet patient and obedient minds, to carry into practice.

The science of Chemistry, applied to agriculture, has furnished analyses of soils, and by determining the nature of the elements or constituent parts of the various kinds, and the combination of these also in the vegetable productions, has enabled many to judge as to what are the elements needed to be applied in the form of fertilizers. Similar investigations have been made into the character of the substance generally used as manures, and the result has been to develop the principles which constitute more especially the nutritious parts of these fertilizers of the soil.—Many substances before unknown, as respects their practical bearing in this point of view, have, on trial, proved to be very valuable; and, after the analyses have been completed, and the elements known, it has been found that new combinations still more effective may be made at a less expense than the natural ones. In bulk, too, manures are thus greatly reduced, as the essence of the principle by which the plant is nourished is extracted and applied without the adjuncts which are usually found with it. How much of the success of farming, and indeed of all other arts and manufactures, depends upon the economy of waste substances, upon the saving of material, upon imitating that beautiful law, which chemistry teaches us, that in nature nothing is lost! It is by means of waste substances, decaying animal and vegetable matters, weeds, and bones, and every such material, that the soil is enriched, or if exhausted, redeemed, and its annual produce increased. With what care are not bones collected here and on the continent, every grain of bone-dust being gathered up like gold, and commerce bringing us thousands of tons, whether it be from the pampas of South America, the prairies of North America, the battle fields of

Europe, the interior of Africa, or the cities of Australia! What fortunes have not the gathering of bones realized! and how has the turnip-fly been cheated out of his favorite morsels by the application of bone-dust!

Cultivation is the economy of force. Science teaches us the simplest means of obtaining the greatest effects with the smallest expenditure of power, and with given means to produce a maximum of force. The unprofitable exertion of power, the waste of force in agriculture, in other branches of industry, in science, or in social economy, is characteristic of the want of true civilization. We sow, we reap, and we thresh by machinery, and steam has been harnessed to the plough, and by proper drainage, the skillful rotation of crops, the application of guano, and various artificial manures, applied in due proportions according to the nature of the soil, as shown by analysis, we double and treble our grain crops.

Agriculture in this country is advancing in all its branches, and in none more than in such as are promoted by, or depend upon, the use of improved machinery.

Already the colonies are beginning to be alive to the advantages of steam husbandry, for British Guiana offers a premium of £1,000 for the successful introduction of a steam plough into that colony, and a similar amount for the successful introduction of a steam digging or grubbing machine.

The wheat grown in Great Britain (Ireland not reckoned) in 1801 to 1810, was but sufficient to supply, at the average rate of 8 bushels per head, 11,000,000 of persons: at the present time the land produces sufficient wheat to feed more than 17,000,000, to say nothing of the additional quantities of other produce raised. Agricultural chemistry has enlarged the domain of knowledge in that important branch of scientific research.

Combination and discussion have done much good. They have driven away the old lethargy and apathy, the bigotry and ignorance which often prevailed among those engaged in husbandry. The proceedings and transactions of the Royal Agricultural Society, the Royal Dublin Improvement Society, the Highland and Agricultural Society of Scotland, the Farmers' Club, the local agricultural societies, and the numerous journals devoted to agriculture, have all diffused a large amount of practical and scientific information.

How much has been done, too, in the introduction of new plants and seeds—whether for forage or for food—in the selection of new varieties of wheat, barley, oats, and turnips, &c. The choice of suitable varieties is even of more importance than the choice of a good soil. Our scientific agriculturists no longer regard the plants as a mere machine, acting a mechanical part, and guided by certain chemical changes: it is a far more subtle thing, it is guided in its development by the laws of life, which overrule all chemical action. Thus chemistry is no longer the solitary guiding star of the scientific farmer: physiology must go with it, hand in hand, in all that relates to improved cultivation. When improved varieties are once obtained, high cultivation is necessary for the continuance of those properties that render them valuable. When cultivated plants

are neglected, and allowed to grow in a poor soil, they soon revert to their wild condition.—It therefore requires a continuance of suitable conditions to perpetuate those peculiarities which render them useful to man; hence the great attention requisite to keeping up the supply of those elements essential to the building up of the structure of the plant. If they are not present naturally, they must be supplied in the form of manure, which may be of various kinds, according to the circumstances of the case. As Sprengel observes, "a soil is often neither too heavy nor too light, neither too wet nor too dry, neither too cold nor too warm, neither too fine nor too coarse, lies neither too high nor too low, is situated in a propitious climate, is found to consist of a well-proportioned mixture of clayey and sandy particles, contains an average quantity of vegetable matter, and has the benefit of a warm aspect and favoring slope;" but although possessed of all these advantages, it is yet unproductive, because it wants some mineral constituent required for plant food. In new countries there is a strong tendency to carry off annual crops from the land, without giving anything back. This was especially the fault, for a long time, in Canada, and Australia, and in the tropical islands of the West Indies, Ceylon, Mauritius, &c. Little or no manure was given to the coffee trees. The stalk of the sugar-cane, after being pressed for the juice, was burnt for fuel, instead of being returned to the soil. Now, however, better practice prevails. The sugar planters of Barbadoes, Mauritius, &c., find their interest in importing large quantities of guano and other manures, and by high cultivation succeed in obtaining enormous annual returns of sugar.

In a comparatively short time, systematic draining has completely changed the aspect of extensive tracts of country in Britain, converting the cold morasses into fertile fields, and greatly increasing the annual produce, even on soil which was before bearing crops sufficient to satisfy the most exacting expectations.

The late Professor Johnston, in his lectures in America, pointed out the following among the greatest practical improvements in the treatment of land, by means of which British agriculture has been advanced in its present condition: The alternate husbandry, a judicious rotation of crops; the introduction of thorough drainage and deep and subsoil ploughing; the judicious and continued application of lime, and the use of bones in various forms—generally what is called "high farming," comprehending the culture of green crops extensively, the making of rich loams, and the purchase of valuable foreign manures of various kinds, to a great extent; the rearing and feeding of improved breeds of stock; the custom of full feeding both for plants and animals; the introduction of lighter and better contrived implements, and of machines to economise labor, and of horses having a quicker step.

Such, then, are generally the practical methods or processes by which British agriculture has been advanced to its present condition. To most of our readers these are well known facts, which it may almost seem superfluous to recapitulate and comment on; but the new settlers in distant colonies, and the rising generation at home interested in agriculture, may well be reminded of the great

practical improvements which have enabled the British farmer to sustain the prolific yield of his soil, and to compete with the abundant produce obtained with little trouble in new lands, requiring at present but little care, culture, or science. The lesson of perseverance and progress, in the successful adoption of new processes of culture and new machinery, whether for ploughing, sowing, hoeing, or reaping, &c., will at least not be lost, and may stimulate further invention and enlarged experiments.—*London Farmer's Magazine.*

To preserve Stakes, &c. in the ground.

Quite recently, while walking in the garden with the Hon. J. W. Fairfield, Hudson, N. Y., he called my attention to the small stakes, which supported the raspberry canes. The end in the ground, as well as the part above, was as sound and bright as if lately made, but he informed me that they had been in constant use for twelve years? Said I, "Of course they are cyanized?" "Yes," he replied, "and the process is so simple and cheap that it deserves to be universally known, and it is simply this; One pound of blue vitriol to twenty quarts of water. Dissolve the vitriol with boiling water, and then add the remainder.

"The end of the stick is then dropped into the solution, and left to stand four or five days; for shingles, three days will answer, and for post six inches square, ten days. Care is to be taken that the saturation takes place in a metal vessel or keyed box, for the reason that any barrel will be shrunk by the operation so as to leak. Instead of expanding an old cask, as other liquids do, this shrinks them. Chloride of zinc, I am told, will answer the same purpose, but the blue vitriol is, or was formerly, very cheap, viz, three to six cents per pound."

Mr. Fairfield informed me that the French government are pursuing a similar process with every item of timber now used in ship-building, and that they have a way of forcing it into the trees in the forest as soon as cut, ejecting the sap and cyanising it all on the spot. I have not experimented with it, but Mr. Fairfield's success seemed to be complete.

The process is so simple and cheap as to be within the convenience of every farmer, and gardener even, and I therefore thought it so valuable as to warrant a special notice of it.—*R. G. Perdee.*

Keeping Horses' Feet and Legs in Order.

If I were asked to account for my horses' legs and feet being in better order than those of my neighbours, I should attribute it to the four following circumstances: "First, that they are all shod with few nails, so placed in the shoe as to permit the foot to expand every time they move; secondly, that they all live in boxes, instead of stalls, and can move whenever they please; thirdly, that they have two hours' daily walking exercise when they are not at work; and, fourthly, that I have not a head-stall or rack-chain in my stable. These four circumstances comprehend the whole mystery of keeping horses' legs fine, and their feet in sound working condition up to a good old age."—*Miles.*

Value of Straw for Fodder.

At least one autumn out of every four we hear of complaints of scarcity of fodder, and of the anxiety of farmers as to how they can manage to get through the winter without suffering to their cattle and loss to themselves. Almost every farmer keeps as much stock, as, with his system of culture, he can furnish with feed in a fair season. When the hay crop fails, as it has done the present year, great difficulty is experienced in providing for the deficiency. Cornstalks is the first and generally the most available substitute, but these are sometimes injured by early frosts, and when these two evils come upon the same season, the prospect for many is gloomy indeed. This is the case the present year—the cornstalks being injured over a large district to at least one-half their value, while the hay crop is deficient almost to the same extent. Did our farmers grow from half an acre to three or four acres of roots—carrots, turnips, mangels, parsnips, or kohlrabi—we would not be so entirely dependent upon either hay or cornstalks for fodder, and a short crop of either, or both, would not leave us in such straitened circumstances. It is not our design, however, to discuss this subject, which was well done by "H. T. B." in our last issue, our purpose being to bring to the notice of readers the value of straw for fodder, and the opinions recently promulgated on this subject by both practical and scientific men.

During the discussion at the late Fair of this State, a gentleman of Erie stated that he had found straw cut and steamed, and mixed with a handful of meal to give it a relish, of more value in keeping stock than the same weight in Timothy hay. This idea of steamed straw being more valuable than good Timothy hay was rather startling, and we do not think one in a score of those present was prepared to endorse or willing to believe such a statement, without further proof. Mr. Mechi, however, the celebrated English farmer and experimenter, advances the same opinion, and urges its trial upon the attention of farmers, declaring it to be "a vital question for agriculture." He considers that the present low estimate placed on straw arises from the fact that farmers do not understand how to feed it, and unless properly prepared it is not available as food. In all cases straw should be cut and steamed, and in this condition he thinks it is as good as the same weight in hay. In proof of this he gives the result of some experiments he has made. In feeding ten Short-horn bullocks, about thirty months old, he gave a steamed mixture of 216 gallons of cut straw, 6 of rape cake, 3 of malt combs, and 5 of bran—moistened with 20 gallons of hot water per day. He also fed 300 pounds of mangel wurtzel; the whole cost, not including the straw and labor, is about \$1 per week. The animals are in a fattening and growing condition, and advancing remuneratively. After feeding they lie down contented, free from restlessness. He further says: "The whole question may be said to hinge upon the condition in which the food is administered. It must be moist and warm. Were I to give my bullocks the same quantity of cut straw in a dry state, they would not eat one-half of it; and, besides, they would be restless and dissatisfied. This I know from experience."

Now, we will ascertain how far these state-

ments of practical men are sustained by the composition of straw, as shown by analyses. The following table we take from the *Cyclopaedia of Agriculture*:

Average composition of wheat straw.

	Air-dry.	Dried at 212° F.
100 parts of wheat straw contain—		
Nitrogenized substances, (muscle-producing sub's.)	1.85	2.04
Substances free from nitrogen, (heat and fat-producing matters,) soluble in potash	26.34	35.08
Ditto, ditto, insoluble	41.22	35.97
Mineral substances	4.59	6.02
Water	26.00
	100.00	100.00

Thus it will be seen that 100 pounds of wheat straw contain over 69 pounds of muscle, heat, and fat producing matter, and 26 pounds of the remaining 30 are water.

Dr. Lyon Playfair, the chemist of the English Royal Agricultural Society, gives the following table of the relative value of wheat straw, hay, and several other kinds of food:

Composition of the principal articles used as food.

	Dry organic matter, or real food.	Portions subtracted as useless.	
		Water.	Ashes.
	Lbs.	Lbs.	Lbs.
100 lbs. wheat straw contain.	79	18	3
100 lbs. linseed cake	75½	17	7½
100 lbs. peas	80½	16	3½
100 lbs. beans	82½	14	3½
100 lbs. ordinary hay	76½	16	7½
100 lbs. barley meal	82½	15½	2
100 lbs. oatmeal	89	9	2
100 lbs. bran	81	14	5
100 lbs. oats	79	18	3
100 lbs. potatoes	27	72	1
100 lbs. red beet	10	89	1
100 lbs. turnips	10	89	1
100 lbs. Swedes	14	85	1
100 lbs. white carrots	12	87	1
100 lbs. mangel wurtzel	10	89	1

By this it will be seen that 100 pounds of wheat straw contain more real food than 100 pounds of hay, nearly as much as 100 pounds of bran, and precisely the same as 100 pounds of oats. We do not suppose that the experience of many of our readers will agree with this scientific estimate of the value of wheat straw, and we doubt if careful experiment would prove it so in practice. But, reducing the estimate one-half, and then 100 pounds of straw is equal in value to 50 pounds of oats, or 50 pounds of wheat bran, for which many farmers willingly pay the cash, while they waste tons of straw in yards and stables. But, who is prepared to say that this estimate will not prove correct in practice? Who has cut and steamed, or scalded straw, and fed it with a little corn or oat meal, or bran, and made even an attempt to ascertain its value? Many, we have no doubt, have felt compelled to sell a portion of their stock on account of the scarcity of food, and to put the remainder on short allowance, which all know to

be a most unprofitable practice, while they had straw enough, if prepared in a manner suitable for stock to eat, to keep all in a thriving condition.

In nearly all the English estimates of the value of the wheat crop, which we have seen, the straw is reckoned at \$10 per ton. This may be considered a high estimate, with our present notions and experience, but the gentleman of Erie county, to whom we above referred, informed us that he considered wheat straw worth that price, and that by its use, in the last two years, he had saved in feeding over \$500. This is the experience of an American farmer. We hope our readers will not only take care of their straw this season, but institute such experiments as will enable them to form a reliable estimate of its true value for food. *Rural New Yorker.*

Time to Dig Potatoes.

MR. EDITOR: The potato crop this season in this vicinity is not as large as we sometimes have, yet much better than that of last year. The potatoes were well set—plenty of them to have made a very large yield, yet they ceased to grow too soon—there being many more small ones than usual; some farmers considering one-third of the crop too small for marketing. Those planted before the first of May did not yield so well as those planted later than that period, the last planting being the largest. Several farmers complain of their potatoes rotting, but this is confined, to a considerable extent to those who dug them since the heavy rains commenced. All, without a single exception, whom I have heard speak upon the subject, say of their potatoes, that if dug before the severe storm of September 15th and 16th, there are no signs of rotting; while those remaining in the ground after that time are more or less diseased. The ground since that heavy storm has not been dry, the rains of September 20th and 21st, and of October 8th and 9th, with small showers intermediate, having kept it quite moist, and no doubt can be entertained but that the rotting of the potato depends very much upon the amount of wet weather. It has frequently been stated that heavy rains, falling while the potato vines are green, and followed by a hot sun, are the great cause of the rot, and that if the vines are dead and the potato near its mature state, there is no danger from wet weather.

But such has not been the case the past season. My own potatoes were ripe before the heavy rains and fit to put in the cellar. A portion of them was dug, (which are not rotting,) and the remaining portion which was left two weeks longer, upon being dug was found to be much diseased and are still rotting. One row was left until October 10th, four-fifths of them were so affected as to be left in the field, and the remaining fifth have since nearly all become diseased. Low, moist ground have produced more disease than high and drier soils, and farmers should make a choice accordingly.

There is a difference in the variety grown, some being more susceptible to the disease than others. From the best information I can obtain from fifteen of the most extensive potato raisers in this vicinity, I should think that, of the common varieties planted, the white Mercers are least

liable to the disease, and the blue Mercers probably the most liable—the Pink-eyes, Red-skins, &c., of which only a few are planted, being intermediate. Of the varieties planted, the white Mercers have given the largest yield, particularly a variety said to have been brought from Ohio. The blue Mercers were second in point of numbers, yet there were more small ones among them.

A few of the Peach-blows were planted mainly as an experiment. One farmer who planted about one-third of an acre, has a fair crop quite equal to any other variety. Another person planted two potatoes last spring, from which he harvested one bushel measure full. Those I planted were better than either the white or blue Mercers. They are very mealy—so much so indeed as to prevent their being boiled until done, without falling to pieces—the outside shelling off. We usually cook them in a bag, the same as cabbage. The vines of the peach-blow grow very rank, some of ours measuring six feet and very large.

Potatoes here are usually planted early—they generally yielding the best—in every second furrow, and heavily manured from the stable or barnyard. Guano is not much used. They are well worked with the cultivator, and before the vines are so large as to fall over, are plowed, after which they are kept clean of weeds until ripe. The average yield is probably 150 bushels per acre.—*Correspondent Germantown Telegraph.*

Study of Insect Life.

The enormous injury which insects cause to man may be held as one reason for ceasing to consider their study as an insignificant pursuit; for a knowledge of their structure, their food, enemies, and general habits, may lead us to guard against their injuries. The honey of the bee, the dye of the cochineal, and the web of the silkworm, may be balanced against the destructive propensities of others which are oppressive to man.

A philosophical study of natural history, however, will teach us that the direct benefits which insects confer upon us are much less important than their general uses in maintaining the economy of the world. In the hot countries, where the hyena and vulture but imperfectly remove decaying animal matter, myriads of insects complete the task. Destruction and reproduction are jointly carried on through the instrumentality of insects; and the same principles regulate even the increase of insects themselves.

When aphides are so abundant as to threaten to ravage our fields and gardens, swarms of lady-birds come to prey upon them. We have merely mentioned these facts to convince our readers that the study of insect life has a great philosophical importance; and what portion of the works of Nature has not? The habits of all God's creatures are worthy objects of our study; and perhaps none of the employments of human life are more dignified than the investigation and survey of the workings of nature in the minutest of her productions.—*Ex.*

Sometimes a quarter of an hour is worth more than a century, as a diamond is worth more than a block of stone.

Feeding Grain to Sheep in Winter.

We find the following, from the well known farmer of Western New York, John Johnston, in the *Rural New Yorker*:

I can say little on the subject of sheep feeding, but what I have often written, yet as many farmers are so very remiss in wintering their cattle and sheep, it would be well if the Agricultural papers would remind them of their duty every Autumn, until there would be few farmers in the country but would keep their stock improving in winter as well as in summer; and well I know that either sheep or cattle turned to pasture when nothing but skin and bone, make but very little improvement in the pasturing season, and often go into another winter in worse condition than they ought to be at the time they were turned to pasture at the middle of May. I think a farmer would be equally excusable, who, after raising a crop of grain, should willfully waste one-half of it, as waste the flesh off his sheep and cattle for five or six months every year. I traveled through some of the western counties of this State lately, and saw many miserably poor ewes and lambs, which must be very well cared for the coming winter, else they will be food for worthless dogs long before spring—and I know that keeping sheep in that way never can pay, no matter how little the food costs. If every farmer would feed each of his sheep one bushel of corn, or 60 lbs. of oats, buckwheat or barley, (whichever he found cheapest,) during winter, with good straw even, for fodder, they would pay him better for the grain, by far, than if he were to carry it to market and sell it for cash. But if he would feed each sheep 90 lbs. of corn, or other grain, they would still pay him better for the grain—they would yield him double the wool to what they did when he fed no grain—they would raise him double the number and much better lambs. Try it, farmers. I have practiced this for over thirty years, and think I cannot be mistaken. You no doubt will hear farmers say, "I fed grain to my ewes one year, but I will never do so again; they lost their wool, the lambs came before their time, and I lost nearly all of them." Now, let me tell you the reason of those men's bad luck. They did not begin feeding the grain until their sheep were in poverty, and the feed was too strong for them; hence it created fever, and bad luck attended them. But you that will take my advice, begin to feed grain whenever your pasture fails in fall, so as to keep up the condition of the sheep, and if you keep the dogs from them, and give them reasonable shelter, I will warrant no bad luck in losing wool, or premature lambs, will befall them. There is no animal that will pay better for good feeding than sheep, and none, as a general thing, is worse fed; if they only got half the care that is bestowed on the filthy swine, they would pay much better.

When I tell farmers that they ought to keep their sheep much better, they shake their heads and say, "It may pay you to feed grain and linseed cake to sheep, but it would not pay us." Far be it from me to advise farmers to run any great risk in feeding a large quantity of grain to their sheep until they have the best of proof (experience) that it will pay them, and that double

what they could get for the grain in cash; but I do wish I could persuade every farmer in the country to feed a few sheep in the way I mention, and I feel sure all who thus practice would feed their whole flocks so the next year. No farmer ought to keep a flock of Merino sheep without shearing at least five lbs. of clean wool per head. If they shear less he ought either to reduce his flock, or feed better, or both, until he gets up to that amount of wool or over; and with such feeding as I advocate, Merino wethers at three years old can be made to average (in the fall) from 120 to 130 lbs., live weight. As they are now kept it is only a picked flock that will average 90 lbs. But you must breed those that are to weigh from 120 to 130 lbs., and that from well-fed ewes, and not expect to take little, stunted yearlings or two year olds, and think to make them weigh the higher weights.

Again, if a lot of Merino wethers averaging 88 or 90 lbs., live weight, in the fall, is worth three cents per lb., a lot weighing 120 lbs. average is better worth four cents, and those averaging 130 lbs. four and a quarter cents—for the reason that the offal of the 90 lb. sheep is only a trifle less than the one weighing 120 lbs. The fact is, there is a profit every way in high feeding. It is just like high manuring, and the higher you feed the higher you manure, the manure being so much richer.

I had intended to have said something on feeding Cattle, but I have said so much for the poor Sheep I must stop. Perhaps I have said more than will be read by many. Your, truly,

JOHN JOHNSTON.

Near Geneva, N. Y., 1859.

About Wintering Stock.

As much is being said about the scarcity of fodder, I wish to give the public, through your paper, a sure way to "help it hold out." It has been my experience that stock kept warm and dry, will thrive with one-fourth less feed than when exposed to "the fury of a winter's storm." Now, brother farmers, if you are short for fodder, instead of buying hay at exorbitant prices, to be fed out of doors and perhaps trampled in the mud, just expend a trifling sum for lumber, and batten up all the crevices about your stables, and make some good mangers, and underpin your barn—making it, as the sailors say, "all taut,"—then keep your cattle in there most of the time while the snow is on the ground. Having done this, go and expend two, three or five dollars more for blankets for your horses, and employ an idle hour in fastening on suitable straps and buckles to keep them on, and you are rigged to brave a hard winter with thirty tons of hay, where before you needed forty. But, to make the thing sure, I will add that you'd better get you a good feed cutter (if you have none), and use it as much as you can. Don't say you can't afford it, or that it "won't pay." Take my assertions, and figure up and see if it won't pay. And I dare say I can find thousands within the circulation of the "Rural," who will endorse my experience. But, knowing that I am not advancing any new doctrine, I will not occupy any more room in your valuable paper.—

Correspondence *Rural New Yorker*.

Head Work in Farming.

It is surprising how much muscular labour is wasted every year, which might be saved, or better directed. This is true in all kinds of business, and not the least in farming. For instance: how many farmers toil on, year after year, with scanty or imperfect implements of husbandry. The modern improvements, which save much labour, and do the work cheaper and better, they will have nothing to do with. Improved varieties of seed, they hold to be, almost without exception, humbugs. Drafting and subsoil plowing are ranked in the same catalogue, *they* are labour lost; but manuring cold, wet lands, and plowing them late in summer a few inches deep, and gathering scanty crops—*this is not labour lost!* Rotation of crops, and manuring lands with reference to the grain or roots to be grown on them, they consider something like book-farming—a very dangerous thing.

We never could see why farmers should not think for themselves, and be able to give a satisfactory reason for every process they undertake. We never could see why they should not endeavour to improve in all farming operations, to learn the very best way of doing everything, and then to do it so. It is told of a certain backwoods' farmer, who had not yet found time to clear the stumps from his fields, that his boys complained bitterly of their troubles in plowing and harrowing, the old fashioned "drag" especially troubled them by its frequent overturnings while plunging among the stumps, and needing to be set right side up at every few rods. "Boys!" said the enraged farmer one day, "take that harrow over to the blacksmith, and tell him to make all the teeth twice their present length, and sharp at both ends, and we'll see what that'll do!" The thing was done—the teeth now pointed both ways, like those of a revolving rake. "Gee up, Bill; now go along." "But, father, it has upset again, as bad as before." "Never mind, boy; go right ahead, it will work well either side up. See, now, what comes from a little thinking." And sure enough it did work, and the field was harrowed in spite of the stumps. We might have selected a more dignified example of the use of head work, but this homely story will answer our purpose.

In the matter of rotation of crops, there is need of forethought and management. Some farmers neglect to manure largely, because of its expensiveness; they would like to underdrain more extensively, and to subsoil plow their lands, if these things did not cost more time, labour and money than they think they can spare. But it costs no more to follow a good system of rotation of crops than it does to carry on a farm without any such plan. Yet such a system may bring the farmer three-fold greater and better crops. Nor in devising such a plan, has he got to depend entirely on his own experience or sagacity.—Books and agricultural journals are at hand, containing the result of other men's experience, and all he has to do is to adapt such information to the wants of his own case. A very little head work of this sort would pay well. It would pay in clean cultivation. Chess, red-root, quack-grass, Canada thistles, butter cups, daisies, and what not, would hide their heads; and grubs, wire-worms, and all manner of insects would

rapidly diminish, if not wholly disappear. It would pay in the increased and prolonged fertility of the land, and in more bountiful crops.—*American Leader.*

Making and Keeping in Order Gravel Walks.

To the Editor of the American Farmer:

Sir: I so often notice in your paper courteous replies to correspondents asking information, that I am encouraged to add myself to the list of enquirers. Will you have the goodness, in your next number, to give me some instruction in the making and keeping in order of gravel walks or roads on a lawn? How they are to be prepared? What proportion of clay, sand or gravel? In fact, any information that will be of use to one entirely ignorant of the art.

The above we have from a lady in Cecil county. We are not only bound, of course, to answer all such inquiries, but they prove very often useful suggestions, by which we are enabled to do a service to many other readers.

Gravel walks, well made and neatly kept, not only add much to the appearance of the grounds about a dwelling, but are essential to comfort and health in bad weather. No grounds are complete without dry, firm walks, at all seasons.

The gravel used should be mixed with loam not clayey enough to stick to the shoes when wet, nor so sandy as to be loose in dry weather, but of such consistency as will bind close and firm at all times. The ground is to be staked out, and to make a good permanent walk, remove the earth to the depth of ten or twelve inches. Such a depth being removed and the space properly filled, the growth of grass and the interference of earth-worms are prevented. Fill up then the first five or six or more inches, with small stones, brickbats or any such matter as you may command. Then put on gravel to the thickness of at least six inches, raking out the coarse parts and rounding the walk very slightly towards the centre. Let the work be done in dry weather and thoroughly rolled with a hand-roller, and made compact and firm. A well made gravel walk should be free from all coarse rough stones, and as smooth, firm and easy to walk upon, as a pavement. This will depend much upon the consistency of the loam with which the gravel is mixed and its due preparation, which must be a matter of judgment with the operator—observing that it must *bind firmly without being sticky*. After being made, the walks should be rolled and swept once a week.

We should be glad to have, from other correspondents, any further hints which their experience may suggest on this subject.

True love never grows hoary.

SUNDAY READING.

There was a heathen king once, named Philip, of Macedon, and a very wise king he was, though he was a heathen, and one of the wisest of his plans was this:—he had a slave, whom he ordered to come in to him every morning of his life, whatever he was doing, and say to him in a loud voice, "Philip remember that thou must die."

He was a heathen, but a great many who call themselves christians are not half so wise as he, for they take all possible care, not to remember that they must die, but to forget that they must die; and yet every living man has a servant who, like King Philip, puts him in mind, whether he likes it or not, that his day will run out at last, and his twelve hours of life be over, and then die he must. And who is that servant? A man's own body. Happy if his body is his servant, though—not his master and his tyrant. But still, be that as it may, every finger ache that one's body has, every cough and cold that one's body catches, ought to be to us a warning, like King Philip's servant, "remember that thou must die." Every little pain and illness is a warning, a kindly hint from our Father in heaven, that we are doomed to death; that we have but twelve hours in this short day of life, and that the twelve must end; and that we must get our work done and our accounts settled, and be ready for our long journey, to meet our Father and our King, before the night comes in which no man can work, but only take his wages; for them who have done good the wages of life eternal, and for them who have done evil—God help them! we know what is written—"the wages of sin is death!"—*Kingsley.*

This earthly world, which we do see, is an exact picture and pattern of the spiritual, heavenly world which we do not see, as Solomon says in the Proverbs, "The things that are seen are doubles of the things which are not seen." And as there is light for us in this earth, which is not ourselves, namely, the sun, so there is a light for us in the spiritual world, which is not ourselves. And who is that? The blessed Lord shall answer for Himself. He says, "I am the light of the world;" and St. John bears witness of Him; "In Him was life, and the life was the light of men." And does not St. Paul say the same thing, when he blessed God so often for having called him and his congregations out of darkness into that marvellous light? If you read his epistles you will find what he meant by the darkness, what he meant by the light. The darkness was heathendom, knowing nothing of Christ; the light was Christianity, knowing Christ the light—and more; being in the light, belonging to Christ; being joined to Him as the leaves are to the tree; living by trust in Christ; being taught and made true men and women of by the Noble and Holy Spirit of Christ; seeing their way through this world by trust in Christ and His promises—that was light, and there is no other light. If a man does not work, trusting in Christ, whom God has set for a light of the world, he works in the night, where God never set or meant him to work; and stumble he will and make a fool of himself sooner or later, because he is walking in the night, and seeing nothing plainly,

or in a right view. For as our Lord says, truly, "There is no light in him." No light in him? In one sense there is no light in any one, he be the wisest or holiest man who ever lived. But this is what just three people out of four will not believe. They will not believe that the Spirit of God gives men understanding. They fancy that they have light in themselves. They try, conceitedly and godlessly, to walk by the light of their own eyes—to make their own way plain before their face for themselves. They will not believe old David, a man who worked, and fought, and thought, and saw far more than any one of us will ever do, when he tells them again and again in his Psalms, that the Lord is his light—that the Lord must guide a man, and inform him with His eye, and teach him in the way in which he should go. And therefore they will not pray to God for light—therefore they will not look for light in God's word, and in the writings of godly men; and they are like a man in the broad sunshine, who should choose to shut his eyes close, and say, "I have light enough in my own head to do without the sun;" and therefore they walk on still in darkness and all the foundations of the earth are out of course, because men forget the first universal ground rules of common sense, and reason, and love, which God's spirit teaches. I tell you, all the mistakes that you ever made—that ever were made since Adam fell, came from this, that men will not ask God for light and wisdom; they love darkness rather than light, and therefore, though God's light is ready for every man, shining in the darkness to shew every man his way, yet the darkness will not comprehend it—will not take it in, and let God change its blindness into day.—*Kingsley.*

"A faithful servant hath the same interests, the same friends, the same enemies, with his master, whose cause and honor he is, upon all occasions, bound to support and maintain. A good man hates, as God himself doth: he hates not the persons of men, but their sins; not what God made them, but what they have made themselves. We are neither to hate the men on account of the vices they practice, nor to love the vices for the sake of the men who practice them. He who observeth invariably this distinction, fulfilleth the perfect law of charity, and bath the love of God and of his neighbor abiding in him."—*Bishop Horne.*

"God is a light that is never darkened; an unwearied life that cannot die; a fountain always flowing; a garden of life; a seminary of wisdom; a radical beginning of all goodness."—*Alanus.*

"Two several lovers built two several cities: the love of God buildeth a Jerusalem; the love of the world buildeth a Babylon. Let every one enquire of himself what he loveth, and he shall resolve himself of whence he is a citizen."—*St. Augustin.*

"Go up, my soul, into the tribunal of thy conscience; there set thy guilty soul before thyself; hide not thyself behind thyself, lest God bring thee forth before thyself."—*St. Augustin.*

"God is all to thee; if thou be hungry, He is bread; if thirsty, He is water; if darkness, He is light; if naked, He is a robe of immortality."—*St. Augustin.*

